Brighton
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City of Brighton Municipal Separate Storm Sewer System (MS4) Management Program

Introduction

The City of Brighton, Colorado is located twenty miles northeast of the capital city of Denver, Colorado. Brighton has a population of approximately 35,000 residents and continues to grow and expand its boundaries. Similar to many other communities in the area and throughout the United States, Brighton has a stormwater utility. This utility is funded by the stormwater utility fee charged monthly to the residents of the City. This fee is used to fund maintenance and installation of storm drainage infrastructure.

Stormwater Overview

When rainfall lands on an impervious surface, such as pavement or concrete, the stormwater does not infiltrate into the ground. This water has to be directed to a conveyance system to protect citizens from flooding and secure human safety. The stormwater utility provides drainage during a rainfall event or snow-melt event. Stormwater is not treated at a wastewater treatment facility to remove pollutants. Many contaminants from urban environments can comingle with stormwater and be discharged into local water bodies, streams and rivers. The City lies within two watersheds. East of Tower Road lies in the Barr/Milton Watershed and west of Tower Road lies in the South Platte Watershed. The State of Colorado has a permit process in place to allow for stormwater discharges from Municipal Separate Storm Sewer Systems (MS4) while requiring permit holders to implement control measures to reduce the amount of pollutants entering Waters of the State of Colorado.

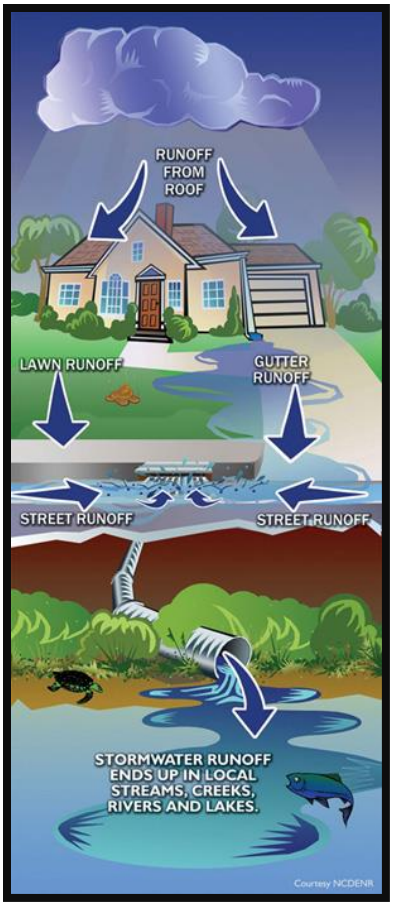

Figure 1: Stormwater Conveyance
Source: North Carolina Department of Environment and Natural Resources

Purpose

This document is to serve as an overview of the control measures and regulatory mechanisms the City of Brighton Stormwater Division has implemented.

The MS4 permit issued to the City by the State of Colorado Department of Public Health and Environment (CDPHE) requires that the permittee implement the following control measures: public involvement and participation, public education and outreach, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and good housekeeping practices. This document is to serve as an overview of the control measures and management program the City of Brighton has implemented. The control measures described herein serve to reduce the amount of pollutants entering the public MS4 to the maximum extent practicable (MEP) and to protect the natural environment.

Organizational Chart

Please see Appendix G for a current organizational chart of the City of Brighton.

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I. Public Involvement and Participation

Public involvement and participation are key control measures needed to ensure that the stormwater utility is serving the constituents that provide funding. The City encourages all citizens to provide input and get involved in the management process. Many processes have been put in place to ensure that the citizens are involved and can become further involved with the system.

A. Public Notice

The CDPHE issues MS4 discharge permits for a term of 5 years. Prior to the effective date of a new permit, the public is notified that the City has re-applied for the MS4 permit. This public notice allows residents to provide feedback on the permit and general stormwater management control measures (PDD). Brighton places public notices in the Brighton Standard Blade, on the City's Stormwater website and in the City of Brighton Utility Bills. The Brighton Standard Blade can be found at many area retailers and at Brighton City Hall (500 S. 4th Avenue, Brighton, CO 80601). The City's website can be accessed at: www.brightonco.gov.

B. Public Connection to Stormwater Division

The City of Brighton Stormwater Division has made available several communication lines for the public to address concerns on projects within the City, provide feedback on the City's MS4 permit or to report an instance of illicit discharging to the storm sewer system (see section III). Below are the lines of communication to the City's Stormwater Division:

a) Stormwater Hotline- 303-655-2120

Anonymous or other tips can be made 24 hours a day regarding any suggestions or concerns a citizen has.

b) Stormwater Email- stormwater@brightonco.gov

Tips can be submitted 24 hours a day regarding any suggestions or concerns a citizen has.

c) Direct Communication- 303-655-2136

The Stormwater Division can be directly contacted regarding any suggestions or concerns a citizen has during regular business hours.

The City of Brighton Stormwater Division will promptly respond to any suggestion or concern reported by the public.

II. Public Education and Outreach

The City of Brighton has implemented numerous strategies to reduce the public's impact on stormwater quality. It is of high importance to educate the public on stormwater quality issues and provide means of outreach for the public to reduce these impacts.

A. Illicit Discharges

Illicit discharges are deemed any non-stormwater substance or material, other than discharges listed in section III.C.1. of this document, entering the storm drainage system. Section III of this document describes illicit discharges in more detail. Three commercial and residential illicit discharges contributing high pollutant loads to stormwater originate from power washing, auto detailing, and carpet cleaning. The Stormwater Division places high emphasis on these three pollutant sources when executing education and outreach strategies.

1. Power Washing

Power washing activities of vehicles and impervious surfaces have a high potential for stormwater pollution. The water pressure carries sediments, soap, and other contaminants to the MS4 and eventually discharges in local streams, ponds, and rivers.

Power washing activities are strictly prohibited in the City of Brighton and is considered an illicit discharge under the City Code.

Power washing activities can be done in a manner to eliminate process water discharges to the storm drainage system. A water-tight barrier can be placed around the area to be power washed. All process water and contaminant will be collected by the barrier and must be vacuumed and disposed of in the sanitary sewer system or some other form proper disposal.

2. Auto Detailing

Automobile detailing uses many chemicals to polish paint, remove tar from the vehicle surface, remove debris from tires and for many other applications. After the chemicals are applied to the surface of the vehicle, it is washed off with the use of water. The water is carried to the storm drainage system and discharges into local stream, ponds, and rivers.

Auto detailing in locations that process water is discharged to the MS4 is strictly prohibited and considered an illicit discharge by City Code.

Auto detailing can be done in a manner to eliminate process water discharges by completing the work in an area that drains to the sanitary sewer. Many auto shops have indoor areas for this purpose. Most auto shops also have sand/oil separators to trap pollutants before treatment at a wastewater facility. This is to reduce the burden on the treatment process.

3. Carpet Cleaning

Carpet cleaning activities occur in cities all over the United States and are an essential method to clean one's house. Carpet cleaning uses chemical and water applications to remove dirt and other debris from household furnishings. This process water must be collected by the cleaning company and discharged at an appropriate location.

The connection of carpet cleaning activities to a storm sewer is strictly prohibited by City Code and will be enforced as an illicit discharge.

Please refer to section II.B. of this document for the targeted audience and modes of delivery.

B. Education and Outreach Strategies

The City of Brighton has categorized the education and outreach strategies into three categories: Passive, active and interactive education and outreach. See Table 1 for a summary of the strategies.

1. Passive

a) Distribution of Educational Material

The Stormwater Division distributes educational material focused on illicit discharges from power washing, auto detailing and carpet cleaning on an annual basis. Utility inserts are sent to all utility users in the City (single-family residential, multi-family residential, commercial and industrial) through utility bills. The inserts contain information on the effects of illicit discharges from the above activities and ways to mitigate the discharges. The inserts are sent in utility bills during one billing cycle per calendar year.

b) Event Advertising

The Stormwater Division sponsors, attends or hosts informational booths at several community events per year. To notify the public of the

Figure 2: City of Brighton SummerFest Logo
Source: City of Brighton

community events, press releases are done throughout the year. Information about events can be found in the Brighton Standard Blade, the City wide event calendar, the city newsletter, social media and on the Stormwater Division's webpage. The following events are advertised and attended by the Stormwater Division on an annual basis:

(1) Spring Household Chemical Roundup

(2) Fall Household Chemical Roundup

(3) Brighton Sustainable Events

(4) Spring Trash Bash Recycling and Waste Event

(5) Fall Trash Bash Recycling and Waste Event

(6) City of Brighton SummerFest

(7) Annual Citywide BBQ event

(8) City of Brighton EcoFair/Good Clean Fun

c) Storm Drain Imprinting

The City of Brighton requires all new developments and redevelopments to install storm sewer manhole covers with an environmental logo. The City has standard details of the manhole covers in the City of Brighton Standards and Specifications manual accessible online. The imprint includes a "fish logo" and the statement "No Dumping- Drains to Stream." The City currently has over 800 imprinted manhole covers and continues to increase this number.

d) Environmental Signage

The Stormwater Division has installed stormwater pollution prevention signage throughout the City. The signs provide contact information to report illicit discharges and remind citizens to pick up after their pets. The City currently has installed signs at a density of 1 per every 3,000 residents.

Figure 3: City of Brighton Environmental Signage
Source: City of Brighton

2. Active

a) Stormwater Hotline

The City actively promotes the Stormwater Hotline phone number and email address. These points of contact can be used to report illicit discharges, drainage complaints or to gain more information on the City of Brighton Stormwater and Environmental Program. The Stormwater Hotline phone number and email address can be found in section I.B. of this document.

The Stormwater Hotline is also promoted on the City's website and on promotional items given away at community events.

b) Social Media

The City of Brighton has an extensive social media platform. Social media accounts include: Facebook, Twitter, YouTube, Pinterest, and Instagram. Stormwater, environmental, and citywide community events are advertised throughout the year on the above platforms.

c) City of Brighton Stormwater Division Webpage

The Stormwater webpage is a great resource for any information regarding the City's stormwater program. One of many great resources is information on actions that can be taken to reduce stormwater pollution. These tips are directed at residential, commercial and agricultural stakeholders in the community.

d) Promotional Items

Promotional items are given away at select events for educational purposes. Promotional items include coloring books, stickers, pencils, dog waste bags, stormwater hotline magnets, and many more.

3. Interactive

a) Household Hazardous Roundup Events

The City of Brighton Stormwater Division sponsors and participates in two household hazardous waste events annually. The City, along with other local sponsors, provides a location for residents to bring household hazardous waste to be disposed of properly. The goal of these events is to prevent citizens from disposing of the waste in storm or sanitary sewers. Please visit the City's event calendar on the website for information on upcoming events.

b) Community Events

The Stormwater Division is dedicated to providing personal contact with the residents it serves. The Division hosts informational booths at many community events (see section II.B.1.b) for more information on which community events the Division attends). This allows the residents an opportunity to ask questions and learn more about the program.

c) Pet Waste Stations

The Stormwater Division works closely with the Parks and Recreation Department and local developers to supply pet waste stations on trail systems. Picking up after pets reduces nutrient and fecal bacteria from entering stormwater or local water bodies.

d) Municipal Recycling Programs

The City offers several recycling opportunities to its residents and staff members. Citizens and employees have access to single-stream recycling programs. These programs accept paper, cardboard, plastic, glass and other approved items.

The City also offers access to a vehicle fluids recycling program. Residents can bring motor vehicle fluids to the Fleet Operations Facility where they will be recycled along with municipal motor vehicle fluids.

Offering recycling centers for citizens and employees keeps the fluids and other recyclable materials out of stormwater, sanitary sewer systems, and local water bodies. Please visit the City's website for locations of recycling centers.

C. Nutrient Discharge Outreach

Within the City of Brighton MS4 there are several sources of nutrient discharges to the storm drainage system, and ultimately, the South Platte River. When excess nutrients reach large water systems, algal blooms can develop. Algal blooms deplete the amount of dissolved oxygen that fish and other aquatic life need to survive. Algal blooms also cause the quality of water to decrease, harming many stakeholders that depend on the South Platte for water. Nutrients, such as phosphorus and nitrogen, can be traced back to all types of land uses.

1. Agricultural

Agricultural land uses have a large impact on the amount of nutrients in surface water. Sources such as animal waste and excess fertilizer application are the root cause of excess nutrients. Agricultural industries in the City can do the following to reduce their impact on surface water quality:

(1) Clean up after animals in an agricultural setting

(2) Keep animals away from and out of any surface water conveyance running through a property

(3) Do not over fertilize crops. Several methods can be used to apply fertilizer more accurately

2. Residential

Residential land uses also contribute to excess nutrients in stormwater. Residents can over apply fertilizer to their lawns or can overspray fertilizer onto the sidewalk. During the next precipitation event this excess fertilizer is carried to surface waters via the MS4. Many residential areas in the City have landscape companies that are hired by the Homeowner's Association to perform landscape maintenance in common areas. These landscape companies can perpetuate the issue. Residents that do not pick up after their pets can add nutrients to stormwater along with many diseases. Is many parks and trail systems throughout the City, dog waste stations are provided to clean up after your pet. Residents of the City can do the following to reduce their impact on surface waters:

(1) Clean up after your pets

(2) Do not over apply fertilizer to your lawn

(3) Ensure that you are not spraying fertilizer on the street, driveway, or sidewalks

(4) Ensure that the Homeowner's Association hires an environmentally friendly landscape company that is aware of nutrient impacts

3. Industrial

Large wastewater treatment facilities are designed to properly remove phosphorus and nitrogen from the waste. However, sometimes these facilities do not remove nutrients to acceptable levels. Also, during large storm events systems can malfunction and cause a direct discharge of untreated waste to surface waters. Large industrial warehouses often store chemicals and waste that, when stored improperly, can contribute to excess nutrients in stormwater runoff. Industrial uses can do the following to reduce their impact on surface waters:

(1) Store all chemicals and materials that may contribute to stormwater pollution in doors or in secondary containment.

(2) Ensure that wastewater treatment facilities have the needed capacity.

(3) Fix any cross connections or infiltration into the sewer system to prevent overflows.

(4) Ensure that wastewater treatment facilities are within the allowable levels of nutrient discharge. This is regulated through discharge permits.

4. Commercial

Commercial areas make up a large portion of the City and are important to the City's economy. The varying uses can cause detrimental impacts to stormwater quality. Many commercial business hire landscape companies to maintain the presence of their property. The landscape companies can over apply fertilizer to landscaping. Also, many commercial businesses sell fertilizer and other sources of nutrients. Commercial users can do the following to reduce their impact on surface waters:

(1) Store fertilizers indoors or under a roof

(2) If fertilizer bags tear, ensure that the spill is cleaned

(3) Hires an environmentally friendly landscape company that is aware of nutrient impacts on stormwater.

It is important to share the above information with the many land uses in the City. The best method to provide this information on the City's stormwater webpage and through utility bill inserts. The City send out one bill insert to all customer accounts describing the impacts of nutrients on surface water and the methods that can be taken to reduce this impact. Information is available on the webpage throughout the year.

The City believes that it is important to provide this information to all our citizens, but believe that residential customers are the most likely to reduce their impact on receiving waters. Residents are most likely to listen to municipal staff on ways to reduce their impact. It is not a monetary impact to citizens to clean up pet waste or be cautious when applying fertilizer; other users may have a large monetary impact to decrease their impact on water quality. In general, residents will feel accomplished by doing their part to protect the environment and feel a connection to their community.

III. Illicit Discharge Detection and Elimination

As part of the terms and conditions of the MS4 permit, the City is dedicated to detecting and eliminating any and all illicit discharges to the public storm drainage system. The City relies on City Ordinances as a regulatory mechanism to prohibit illicit discharges into the system. More on the City Ordinances can be found in section III.B. below.

Figure 4: Oil Discharging to Storm Drain
Source: City of Brighton

A. Storm Sewer System Map

The City of Brighton uses Geospatial Information System software to map the public infrastructure and outfalls. Public infrastructure is any part of the storm drainage system that is owned, operated and maintained by the City of Brighton. This includes channels, inlets, detention and retention ponds, and curb and gutter. Outfalls are locations that stormwater leaves the public MS4 and enters another, usually larger, water system. This can include ditches, rivers, streams and ponds/reservoirs.

The storm sewer mapping is updated when new, publicly owned infrastructure is accepted by the City after construction or when properties are annexed into the City's MS4 permitted area. The collection of information is compiled by Global Positioning devices in the field and by data shared by other organizations in the community.

The City also relies on Master Planning efforts by contracted sources to provide updated information on the storm drainage system.

The Current map can be located at the following location on the City Server and is available upon request: P:\GIS Shared\Departments\Public Works\Storm\Stormsewer

B. Regulatory Mechanism

The City Council has adopted City Ordinances as a way to prohibit illicit discharges and connections to the storm sewer system. All materials other than stormwater are prohibited from entering the storm drainage system and are considered an illicit discharge (other than those listed is III.C.). The City Ordinances concerning the storm

drainage system (Chapter 14, Article 14-6) can be found in its entirety at http://www.brightonco.gov/202/City-Code.

C. Regulatory Mechanism Exceptions

There several discharges to the storm sewer system that are not considered illicit discharges by the City of Brighton. City Ordinances that allow for exceptions to the regulatory mechanism listed above can be found in Chapter 14, Article 14-6, Section 14-6-60 of the City Code. The City Ordinances related to storm drainage can be found at http://www.brightonco.gov/202/City-Code.

1. Non-Stormwater Discharges- Allowed

Some non-stormwater discharges are exempt from prohibition in the City Ordinances. These discharges are exempt due to consideration as low-risk for pollution of stormwater or for safety of human life. These allowable discharges include:

(1) Water line flushing or other potable water sources

(2) Landscape irrigation or lawn watering

(3) Diverted stream flows

(4) Rising groundwater

(5) Groundwater infiltration into storm drains

(6) Uncontaminated, pumped groundwater

(7) Foundation or footing drains (not including active construction groundwater dewatering systems)

(8) Crawl space pumps

(9) Air conditioning condensation

(10) Springs

(11) Non-commercial washing of vehicles

(12) Natural riparian habitat or wetland flows

(13) Dechlorinated swimming pool discharges

(14) Emergency firefighting activities

(15) Any other water source not containing pollutants

(16) Dye testing (with written notification from the Director of Utilities)

(17) Any discharge authorized by a National Pollutant Discharge Elimination System (NPDES) or Colorado Discharge Permitting System (CDPS) permit

(18) Stormwater runoff

(19) Snowmelt

(20) Water Incidental to street sweeping that is not associated with construction activities

(21) Irrigation return flows

2. Non-Stormwater Discharges- Prohibited

The City of Brighton considers any type of power washing activity or any activity not listed above to be an illicit discharge and is prohibited in the City of

Brighton. The prohibition of power washing activities must be explicitly stated because the State of Colorado does not consider this activity to be an illicit discharge. Some other government entities may not consider power washing activities as an illicit discharge, but the Stormwater Division considers this activity to be of high concern for pollution of stormwater.

D. Tracing an Illicit Discharge

When an illicit discharge is reported to, and confirmed by, the Stormwater Division, it is important to trace the discharge to its source and eliminate it. The Stormwater Division can use the following tools to trace an illicit discharge:

(1) Storm sewer maps- The City has extensive and detailed maps of all portions of the public MS4 and outfall locations. The location of inlets, pipes and directions of flow are available.

(2) Die tracer- A die tracer is a tablet that can be placed in stormwater that changes the color of the water. This can be useful when trying to follow stormwater flows from a specific point to another.

(3) Closed Circuit Television (CCTV)- The Stormwater Division, in partnership with the Utilities Maintenance Division, can utilize CCTV to gain insight on locations that humans can not physically investigate.

(4) Aerial Photography- The Stormwater Division can utilize aerial maps in Geospatial Information System software to gain a good perspective of a location within the City.

(5) Field Inspection- The Stormwater staff can perform a field inspection to determine the location and/or cause of an illicit discharge. This includes a staff member physically opening storm drain manholes and looking in inlets.

(6) Citizen Input- The Division can rely on citizens to report the cause and location of illicit discharges. A thorough follow-up investigation will be performed by City employees.

(7) Property Ownership Identification- The Stormwater Division can utilize this information to contact the responsible party.

E. Procedures for Inspecting and Tracing an Illicit Discharge

The procedures for tracing an illicit discharge can be found in the Stormwater Division's Illicit Discharge Standard Operating Procedures manual titled "Illicit Discharge Detection and Elimination." This can be located in Appendix A of this document.

F. Enforcement and Elimination of an Illicit Discharge or Connection

The City of Brighton Municipal Code allows for a wide range of enforcement actions for the removal of illicit discharges and connections. Below is a summary of the possible enforcement actions the City may take. The following actions are outlined fully in Chapter 14, Article 14-6, Section 14-6-130 of the Municipal Code. Further information can be found in the document titled "Illicit Discharge Detection and Elimination." It is located in Appendix A of this document.

The enforcement actions are not considered to be in any particular order.

1. Written Notice of Violation and Compliance Order

The discharger or person that directly/indirectly caused the discharge shall receive an official document stating the nature of the violation and compel the discharger to perform an action. This action may be to disconnect an illicit connection, remediate a discharge or require that discharges cease and desist. The official notification will be hand delivered or sent via Certified U.S. Mail.

2. Municipal Summons (Criminal Action)

The discharger shall receive a summons to the Municipal Court of the City of Brighton. The guilt or innocence of a discharger shall be decided by a Court of Law and/or by a jury of his or her peers. This enforcement action may carry jail time and/or fines enforced by the Court.

3. Verbal Notice of Violation and Compliance Order

The discharger shall receive an official verbal directive stating the nature of the violation and compel the discharger to perform an action. This action may be to disconnect an illicit connection, remediate a discharge or require that discharges cease and desist. The official notification will be verbally stated to an illicit discharger.

4. Suspension or Termination of MS4 Access

The Director of Utilities may suspend, without prior notice, discharge access to the public MS4 to a person when it is deemed necessary to prevent an actual or threatened discharge that may place public or environmental health at risk.

5. Monetary Penalty (Administrative Action)

The discharge shall be required to pay a fine to cover the administrative cost of an illicit discharge. This can include inspection fees and payment for time that City staff has spent on resolving an illicit discharge.

6. Remediation of Illicit Discharge

In the case that a discharger does not follow directives to remediate an illicit discharge and the City is left with the burden, the discharger shall be charged for the work completed by the City or a contractor that is hired.

7. Performance of Monitoring, Analysis or Reporting

The discharger shall be directed to monitor or hire a contractor to monitor the impact of an illicit discharge. The discharger may also be directed to report on a remediation effort or other task as directed.

8. Implementation of Source Control and/ or Treatment BMPs

The discharger shall be directed to implement a control measure or treatment best management practice to control a source of pollution or reduce the impact of the source.

The City response need not follow a certain escalation ladder, but rather the enforcement shall be proportionate to the discharge involved or the recalcitrance of the violator. For example: discharges/dischargers that may compromise the safety of human life shall not be administered a Written Notice of Violation in the mail. A more immediate and direct action shall be taken.

Enforcement actions are carefully administered to ensure consistent enforcement of like violations.

G. Municipal Staff Training

The City of Brighton Stormwater Division places a high emphasis on training others the procedures to detect and report illicit discharges. The following section outlines the training procedures implemented by the City of Brighton. The Stormwater Division documents all training sessions and personnel trained in City databases. Further information can be found in the document titled "Illicit Discharge Detection and Elimination." It is located in Appendix A of this document.

1. Training Activities

The Stormwater Division is responsible for providing annual IDDE training to applicable employees. Each Department/Division is responsible for implementing IDDE requirements throughout the year. The training includes how to identify an illicit discharge and how to direct the information concerning an illicit discharge to the appropriate City staff.

a) Identifying an Illicit Discharge

City staff is trained to detect the signs of an illicit discharge. The Stormwater Division provides presentations, visual representations, and question/answer sessions to train employees.

b) Reporting to the Stormwater Division

All spills and/or illicit discharges must be reported to the Stormwater Division **immediately**. The Division has the most training, will respond to the location and further assess the situation. Reporting can be done through City email, phones, cell phones or in person. City employees are

trained on collection of the appropriate information to provide to the Stormwater Division.

2. Training Materials

Training material can be provided upon request.

a) PowerPoint Presentation

PowerPoint presentations with video/images concerning illicit discharges can be used to train employees. The PowerPoint should include an overview of the Division and stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

b) Video

A video training should be prefaced by a narrative overview of the Division. The video should include an overview of stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

c) Lecture

A lecture style training shall include an overview of the Division and stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

3. Targeted Individuals and Frequency of Training

All employees in the training program are trained on an annual basis. This frequency has been established to ensure that all newly hired employees receive training within their first year of employment. The training program focuses on employees that are highly visible and spend a large amount of time in the community. The targeted departments and divisions are included below.

a) Utilities Department

(1) Utilities Administration

(2) Utilities Collection and Distribution Divisions

(3) Utilities Engineering Division

(4) Utility Construction Inspection Division

(5) Stormwater Division

(6) Water Treatment Plants Division

b) Parks and Recreation Department

(1) Parks Maintenance Division

c) Streets and Fleet Department

(1) Street Maintenance Division

(2) Fleet Maintenance Division

d) Police Department

(1) Code Enforcement

e) Facilities Department

(1) Facility Maintenance Division

(2) Cemetery Division

f) Community Development

(1) Building Inspection Division

4. Priority Areas

In order to place resources where they will have the greatest impact, it is important to evaluate the priority areas. In general, it is the City's experience that illicit discharges have a tendency to be:

a) Solid wastes such as batteries, tires, sediments, pet waste, grass clippings and trash dumped into culverts

b) Motor oil or antifreeze leaks from residential vehicles

c) Intentional or accidental dumping of oil, antifreeze, paint, gasoline, concrete washout water, gray water, cooking oil/grease down the storm drainage system

d) Discharges associated with commercial activities such as power washing, carpet cleaning and auto detailing. Commercial businesses are also a priority area for illicit connections.

IV. Industrial Facility Discharge Reporting

In the event that a permitted discharge within the City MS4 boundary is found to have a negative effect on water quality, the Stormwater Division shall report the incident to the Colorado Department of Public Health and Environment Emergency line within 24 hours of discovery. A report detailing all aspects of the incident will be submitted to the CDPHE within 15 days of the discovery of the event. See Document titled "Illicit Discharge Detection and Elimination" for further information on report of industrial water quality degradation. It is located in Appendix A of this document.

V. Documentation of Illicit Discharge

The stormwater Division requires all the following data to be stored as a digital copy on the City's computer server. The records are retained for a minimum of three years after the expiration of the permit term.

1. Field Notes

The Inspector will often have to take specific notes on several variables. The notes will include all observations taken during the inspection process. When recording notes about the sites, the Inspector should be as objective, specific, and consistent as possible. The field notes shall be attached to the inspection form.

2. Pictures

If any illicit discharge is present, the inspector shall take dated pictures whenever possible. The dated pictures will accompany the inspection form.

3. Water Sampling (if applicable)

A water sample may be taken to determine the type and/or source of the illicit discharge. The water sample will be sent to a lab for analysis. The analysis findings shall be attached to the inspection form.

4. Inspection Report

The report entails all the above items as well as the inspection form. The proprietary program title "MS4 Front" is used by the Division to track all illicit discharge reports. The site can be found at: www.ms4.ms4front.net/

VI. Construction Site Program

Construction activities have a large effect on stormwater quality and can be a direct source of pollution found in local ponds, streams and rivers.

A. Regulatory Mechanism

To control pollution of stormwater by construction activities, the City of Brighton has developed and implemented a construction stormwater runoff oversight program. The City Code mandates that all construction site disturbing over one (1) acre of land or that is part of a larger common development that disturbs over one (1) acre of land will be regulated under a permit. The regulation of a construction site is embodied within the City of Brighton Erosion and Sediment Control (ESC) permit. City Code allows for construction sites granted an ESC permit to be inspected by the City. If an inspector finds violations of the permit terms and conditions and/or City Ordinances during an inspection, the City has the authority to enforce sanctions upon the permitted party. Sanctions will be further discussed in section VI.G. of this document. Greater detail can be found in the document titled "Construction Site Runoff Control Program." It is located in Appendix B of this document.

To read the City of Brighton Municipal Code pertaining to construction activities and the ESC permit, refer to Chapter 14, Article 14-2, Section 14-2-40 to 14-2-120. It can be located at http://www.brightonco.gov/202/City-Code.

B. Regulatory Mechanism Exemptions

There are exemptions to coverage under the City's ESC permit. The exemptions exist due to oversight by another regulatory agency, extent of disturbance area and existing site conditions. The following sites are exempt from coverage under the City of Brighton ESC permit:

1. Agriculture

Land zoned for and used for agricultural purposes are exempt from permit coverage for any land disturbing activity.

2. Mining Activities

Any gravel, sand, dirt, or topsoil removal activity authorized pursuant to Colorado Mined Land Reclamation Board is exempt from permit coverage.

3. State Permit Exempt

Any construction activity waived or exempt of coverage under the State of Colorado Discharge Permitting System. For a list of exemptions from the state permit, please visit their website at www.colorado.gov/cdphe.

4. Site Size

Sites that disturb less than one acre of land and are not part of a larger common development are exempt from permit coverage.

Pursuant to City Code, sites that are exempt from permit coverage are still required to use best management practices (BMPs) to prevent stormwater pollution from construction activities. Sites are also subject to illicit discharge enforcement.

C. Erosion and Sediment Control Permit Requirements

During the application process, the following documents need to be attached to the application:

1. Signed Application

One copy of the signed application with all required information must be submitted. The signature is acknowledging that the applicant has received a copy of the City's Enforcement Policy. (See Appendix C for copy of policy and application).

2. State Stormwater Discharge Permit

One copy of the State of Colorado stormwater discharge permit. If the permit has not been received, a copy of the State application can be submitted at the time of ESC application.

3. Financial Guarantee

The City of Brighton requires that the site operator provide a financial guarantee for erosion and sediment control. The guarantee is held to ensure that the operator installs and maintains BMPs on-site.

4. Stormwater Management Site Narrative

The City of Brighton requires that the site operator submit a site-specific Stormwater Management Plan (SWMP) narrative for review.

5. Stormwater Management Civil Plan

A copy of the Civil erosion and sediment control plans showing the placement of BMPs throughout the site must be submitted.

D. Site Narrative and Plan Review

The appropriate staff from the Stormwater Division is responsible for ensuring that the site plan and narrative meet or exceed the City's Ordinances, standards and specifications. The staff member will receive notification through the work flow system

that they have a permit application to review. The Stormwater Division shall use the SWMP checklist (Appendix D of this document) to ensure compliance with all aspects of the construction oversight program and minimum design standards. The SWMP checklist meets or exceeds the requirements of the State of Colorado.

The City of Brighton Municipal Code Chapter 14, Article, 14-2, Section 14-2-70(d)(3) requires that the site operator create a SWMP and that the Stormwater Division review said plan.

E. Minimum Design Standards

During the review of the SWMP by City staff, it is ensured that control measures are implemented to address disturbed/stored soils, vehicle tracking of sediment onto impervious surfaces, bulk storage areas, concrete washout areas and many other sources of pollution from a construction site. The control measures for the above pollution sources must meet the standards of the current Urban Drainage and Flood Control District (UDFCD) Criteria Manual and/or the City of Brighton Standards and Specification. Other sources of BMP design will not be accepted by the City, unless expressly approved by the Director of Utilities.

Chapter 14, Article 14-2, Section 14-2-50 of the City of Brighton Municipal Code requires that the SWMP and control measures be in conformity with City of Brighton Standards and Specifications and/or UDFCD design standards.

The Urban Drainage and Flood Control District Criteria manual can be found at www.udfcd.org.

City of Brighton Standards and specification manual can be found at http://www.brightonco.gov/476/Standards-and-Specifications.

F. Site Inspection Procedures

The City of Brighton conducts inspections at construction sites holding an ESC permit at least every 45 days. All inspections completed are routine (full-level inspections).

When a full-level inspection is performed, the site should be re-inspected (compliance inspection) within an appropriate time frame to ensure compliance with the permit. If a pollution source is immediately threatening the environment or public health, the issue should be addressed while the inspector is still on the site.

All records of inspection frequency, inspection type and enforcement actions are recorded in City databases. The databases allow for prompt reporting and compiling inspection data.

After information about the inspection is recorded in the database, the inspection results should be sent to the responsible party so corrections can be completed.

Further information on the site inspection procedures can be found in "Construction Site Runoff Control Program" in Appendix B of this document.

G. Enforcement Procedures

The City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-110 allows for enforcement for non-compliance by a responsible party. The enforcement actions are not considered to be in an escalation ladder, but rather the enforcement action shall be proportionate to the instance of non-compliance. Factors such as the probability of stormwater pollution and protection of the environment should be considered when selecting an enforcement action.

The following actions are appropriate enforcement for non-compliance:

1. General Finding

After an inspection takes place and corrections need to be made to remain compliant with the permit, the results should be sent to the site operator. This will allow the operator to make the appropriate corrections at the site.

2. Written Notice of Violation and Compliance Order

The permitee or responsible party shall receive an official document stating the nature of the violation and compel the permitee to perform an action. This action may be to maintain BMPs, install BMPs or to perform some other scope of work. The official notification will be hand delivered or sent via Certified U.S. Mail.

3. Municipal Summons (Criminal Violation)

The permitee shall receive a summons to the Municipal Court of the City of Brighton. The guilt or innocence of a permitee shall be decided by a Court of Law and/or by a jury of his or her peers. This enforcement action may carry jail time and/or fines enforced by the Court.

4. Verbal Notice of Violation and Compliance Order

The permitee shall receive an official verbal directive stating the nature of the non-compliance and compel the responsible party to perform an action. This action may be to maintain BMPs, install BMPs or to perform some other scope of work. The official notification will be verbally stated to the responsible party of permitee.

5. Monetary Penalty

The permitee or responsible party will be fined for re-inspection of a site until compliance is reached.

6. Work Performed by City or Contractor

In the case of non-compliance the City can perform BMP maintenance or installation or hire a contractor to complete the work. The City will charge the

responsible party for the work completed. If the invoice for completed work is not paid in full, the City shall place a lien on the property.

7. Stop Work Order

The Director of Utilities can place a stop work order on a construction site until compliance is reached. A construction site under a stop work order is not allowed to continue any construction activities.

The following examples will provide insight into the enforcement of construction site non-compliance:

Figure 5: ESC Permit Violation
Source: City of Brighton

Example 1: While an inspector is inspecting a construction site, he/she notices that a concrete truck is washing the chute out into the curb and gutter. The inspector should immediately give the truck operator a Verbal Notice of Violation and Compliance Order. Concrete wastewater drastically raises the pH of receiving waters. It would not be appropriate for the inspector to respond with a Written Notice of Violation and Compliance Order or any other method because the threat is imminent. The inspector shall let the truck operator know that this activity is not allowed and that the washout water needs to be removed from the curb and gutter immediately.

Example 2: While inspecting a construction site, the inspector notices that the erosion control straw wattles at the perimeter of a site are not staked into the ground per design standards. All BMPs have been installed correctly at this site in the past. The inspector shall note this as a general finding on the inspection form and inform the site operator of the finding. There will be many instances of improperly installed BMPs at large construction site. It would not make sense to use another form of enforcement for this first time finding.

Further information on enforcement procedures can be found in "Construction Site Runoff Control Program" in Appendix B of this document.

H. Training

When a construction site operator applies for an ESC permit, they are required to schedule a pre-construction meeting with the Stormwater Division. At this pre-construction meeting, expectations of the contractor, inspection procedures and schedule, and enforcement actions are discussed. It is important to provide educational material and let the site operator know that the inspector is there to ensure the site remains in compliance with all applicable permits.

The inspector can also provide information about training opportunities to site operators.

More about the preconstruction meeting and training of operators can be found in "Construction Site Runoff Control" in Appendix B of this document.

I. Summary of Procedures for Municipal Projects

Municipal projects are treated the same as a private project. The project will have to go through the extensive review process, obtain all required permits, remain in compliance with permits and perform any corrective action as directed by a City inspector.

VII. Post Construction Runoff Control Program

The City of Brighton is committed to reducing the discharge of pollutants from the City's Stormwater Drainage System after the site is developed and permanent best management practices have been installed. To reduce the discharge of pollutants, the City has developed a Post-Construction Runoff Control Program. This program ensures that permanent best management practices are maintained and remain free of trash, debris, yard waste and other pollutant sources in perpetuity. A permanent best management practice at a development site cannot simply be installed to remain in proper working order.

Figure 6: Permanent BMP: Stormwater Quality Detention Pond
Source: City of Brighton

A. Regulatory Mechanism

The City of Brighton has adopted Municipal Ordinances that require any development or redevelopment project that disturbs one (1) acre or more of land or is part of a larger common plan of development that disturbs one (1) or more acres of land to implement permanent best management practices into the site development. The City Code further requires that the permanent BMP(s) be maintained by the responsible party and if the BMP(s) are not maintained, the code requires that enforcement action be taken to protect the quality of the stormwater being discharged from the City of Brighton.

The Municipal Code also states that any project, regardless of size, which the Director of Utilities determines to have a significant impact on water quality or requires significant stormwater detention is required to implement permanent best management practices into the project.

To read the City of Brighton Municipal Code pertaining to post-construction runoff control, refer to Chapter 14, Article 14-8.

1. Excluded Projects

The City of Brighton Municipal Code expressly exempts the following projects from the above regulations:

(1) Development of single family or duplex residential lots that do not disturb one (1) or more acres and is not part of a larger common plan of development.

(2) Redevelopment of single family or duplex residential lots that do not disturb one (1) or more acres and is not part of a larger common plan of development.

(3) Projects that are used for only agricultural purposes unless otherwise determined by the Director of Utilities.

(4) Routine maintenance to a permanent BMP needed to maintain original design standards.

(5) Any emergency project deemed necessary to protect human or environmental health.

(6) Linear projects that do not result in any impervious cover (as determined by the Director of Utilities).

(7) Any development or redevelopment that was approved by the City before the effective date of the municipal code section.

B. Minimum Design Standards

The City of Brighton Municipal Code requires that all proposed permanent BMPs are designed using Urban Drainage and Flood Control District's current Criteria Manual and/or City of Brighton Standards and Specifications. UDFCD's standards meet or exceed the requirements of the City of Brighton MS4 permit.

Urban Drainage and Flood Control District's Criteria Manual can be seen at www.udfcd.org. City of Brighton Standards and Specifications can be found on the City's website at: www.brightonco.gov

C. Development Review Process

The City of Brighton has developed a Development Review Committee to ensure that all developments and redevelopments within the City conform to City Ordinances and Standards.

The Committee is formed with representatives of all departments of the City. Each reviewer on the committee has numerous chances to ensure that all developments meet the requirements of his/her department.

The Stormwater Division regularly attends these committee meetings and provides feedback on developments to ensure that qualifying sites address permanent best

management practices. Other environmental practices are addressed during this process as well.

Once all comments by reviewers have been addressed, the development can move to construction phases.

Further information on the construction acceptance of BMPs can be found in “Post Construction Runoff Control Program” in Appendix E of this document.

D. Construction Acceptance of Best Management Practices

The City inspectors are on-site at regular intervals to ensure that permanent best management practices are constructed per approved engineering plans. Construction and Erosion and Sediment Control Permits cannot be closed unless the best management practices are installed. Once the project is complete, the City requires as-builts to be provided for confirmation and importation into databases.

If the site is a municipal project, a formal construction acceptance letter is sent to the contractor. Once this letter is sent, a specified warranty period begins. After the warranty runs out, the City is responsible for all maintenance and function of the best management practice.

Further information on the construction acceptance of BMPs can be found in “Post Construction Runoff Control Program” in Appendix E of this document.

E. Post-Construction BMP Inspections

The City of Brighton Stormwater Division staff inspects all permanent best management practices at least once every five years. This includes all private and public BMPs installed after March 10, 2008. The inspections focus on the functionality and maintenance of the BMP(s) located at a site.

A City inspector will contact the responsible party to inform him/her when the inspection will occur, and invite him/her to attend. If maintenance needs are noted or the BMP is no longer functioning as it was designed, the responsible party will be informed through official channels. The responsible party will be given a timeline to correct any deficiencies. The City inspector will then return to the site to ensure that all corrections have been completed and the site is in compliance with City Ordinances.

All data on inspection findings, frequency and enforcement action is stored on databases within the City. The databases make information readily available and easily compiled.

Further information on the construction acceptance of BMPs can be found in “Post Construction Runoff Control Program” in Appendix E of this document.

F. Enforcement Procedures

1. Written Notice of Violation and Compliance Order

The responsible party shall receive an official document stating the nature of the violation and compel the permitee to perform an action. This action may be to maintain BMPs or to perform some other scope of work. The official notification will be hand delivered or sent via Certified U.S. Mail.

2. Verbal Notice of Violation and Compliance Order

The permitee shall receive an official verbal directive stating the nature of the non-compliance and compel the responsible party to perform an action. This action may be to maintain BMPs or to perform some other scope of work. The official notification will be verbally stated to the responsible party.

3. Monetary Penalty

The responsible party will be fined for re-inspection of a site until compliance is reached.

4. Work Performed by City or Contractor

In the case of non-compliance the City can perform BMP maintenance or hire a contractor to complete the work. The City will charge the responsible party for the work completed. If the invoice for completed work is not paid in full, the City shall place a lien on the property.

G. Data Management

All information about inspection schedule, inspection results, follow-up inspection and enforcement action is stored on databases within the City. The data bases allow for quick data retrieval and compilation.

H. Municipal Permanent Best Management Practices

All publically owned BMPs are inspected and enforced in the same manner as private BMPs. In the event of maintenance needs, the appropriate City department will be contacted.

VIII. Municipal Pollution Prevention

The City of Brighton is committed to ensuring that municipal operations reduce or eliminate the amount of pollutants contributed to stormwater. The City has designed facility runoff control plans for all facilities covered under this program. Municipal facilities covered under this program are inspected on an annual basis to ensure compliance with the program. The city believes the ideal that stormwater pollution prevention begins with City operations and strives to be an example for others performing work in the City.

A. Covered Municipal Facilities

1. Parks Maintenance Facility

The Parks Maintenance Facility houses all the material needed to maintain public parks throughout the City of Brighton. This includes motorized vehicle, non-motorized vehicles, small-engine machinery, chemicals and other necessary materials.

2. Street and Fleet Facility

The Street and Fleet Facility houses material needed to maintain the streets and motor-vehicle fleet for the City. This includes storage of vehicles, chemicals, sand and gravel and an indoor vehicle maintenance facility.

3. Utility Maintenance Facility

The Utility Maintenance Facility houses material needed to maintain the sanitary sewer, water service, and storm drainage for the City. This includes vehicle storage, sand and gravel storage, and other essential materials.

4. Miller Street Storage Facility

The Miller Street Storage Facility houses signs and small non-motorized pieces of equipment outdoors.

5. Numerous Public Parking Lots

6. Numerous Municipal Cemeteries

B. Municipal Industrial Facilities

1. Reverse Osmosis Facility

The Reverse Osmosis Facility houses equipment needed for the treatment of drinking water for the City. There is no storage of material that is outside. This industrial facility has an individual permit for stormwater discharges.

2. Wastewater Treatment Facility

The Wastewater Treatment Facility stores material needed to treat the wastewater for the City. This industrial facility has a separate stormwater discharge permit.

C. Municipal Facility Runoff Control Plans

Detailed runoff control plans for the facilities listed in section VIII.A. above are located on City databases and print copies are available in the Stormwater Division.

D. Municipal Facility Inspections

Municipal facilities covered under the MS4 permit are inspected on an annual basis. The Stormwater Division staff works closely with facility managers to set up an inspection at their respective facility. During the inspection, Division staff is looking for sources of stormwater pollution and the use of control measures to prevent this pollution. The inspector visually inspects points where stormwater is discharged from the facility. Also, during the inspection, staff ensures that the facility has an updated runoff control plan. After the inspection is complete, the inspector will discuss any finding at the facility. The inspector will then work with the facility manager to install or maintain any control measures on the property.

Figure 7: Covered Sand Storage to Prevent Stormwater Pollution
Source: City of Brighton

All information regarding inspection frequency, inspection findings, photographs and pollution elimination measure are stored on databases within the City.

Further information on the construction acceptance of BMPs can be found in "Post Construction Runoff Control Program" in Appendix E of this document.

E. Municipal Operations and Maintenance Procedures

To prevent stormwater pollution from daily municipal operation, the City has established Standard Operating Procedures (SOPs). The SOPs cover many aspects of operations and maintenance that can be found in municipalities. Standard Operating Procedures are available on the City's Intranet for employees to view and are also located in the facility runoff control plans. The following SOPs were created to instruct employees on pollution prevention practice during municipal operation and maintenance.

(1) Fertilizer, Herbicide and Pesticide Application

(2) Heavy Equipment and Vehicle Maintenance

(3) Large Outdoor Festivals and Events

(4) Municipal Construction Activities

(5) Outdoor Fleet Maintenance

(6) Outdoor Materials Storage

(7) Parks and Open Space Maintenance

(8) Power Washing Activities

(9) Salt and Sand Storage

(10) Snow and Ice Control

(11) Snow Storage

(12) Spill Prevention and Response

(13) Streets- Curb and Gutter Maintenance

(14) Streets- Curb and Gutter Replacement

(15) Street Sweeper Cleaning and Disposal

(16) Street Sweeping Activities

(17) Utilities Maintenance

(18) Utility Construction and Replacement

(19) Vehicle Fueling Activities

(20) Waste Management

(21) Recycling Drop-off Center

(22) Graffiti Removal

(23) Paint and Paint Removal

(24) Coils Cleaning- THE

(25) MS4 Maintenance Activities

Further information on the construction acceptance of BMPs can be found in "Good House Keeping and Municipal Operations Program" in Appendix F of this document.

F. Nutrient Source Reductions

Nitrogen and Phosphorus can come from many sources throughout the City. A main source of these nutrients is from improper storage, application, or disposal of fertilizer.

There are several Municipal operation procedures that have the potential to contribute nitrogen and phosphorus to bodies of water that receive discharges from the City of Brighton MS4. These facilities are as follows:

1. Parks and Open Space Fertilizer Application

The City Parks and Recreation Department frequently applies or hires a contractor to apply fertilizer to parks and open spaces. The fertilizer provides nutrients, such as Nitrogen and Phosphorus, to vegetation to make the area more aesthetically pleasing and healthy. During this application process, workers may over-apply the fertilizer. The fertilizer can be applied to impervious areas, which will wash into stormwater during the next precipitation event, or it can be too heavily applied. When applied to heavily, the vegetation cannot take-up all the fertilizer and it is washed away with the next storm event. Fertilizer can also accidentally be applied directly to surface waters.

2. Facility Maintenance Activities

While maintaining the lawns and other vegetation at municipal facilities, fertilizer can also be carried away in rain events in a similar fashion as stated above.

3. Improper Pet Waste Removal

Several Parks and Open Spaces in the City of Brighton have "pet waste stations." These station are to provide citizens with trash bags to pick up pet waste and a trash can to properly dispose of the bag. If not picked up, pet waste can be washed away with stormwater and contribute nitrogen and phosphorus to receiving waters. If the "pet waste stations" are not regularly maintained, people will disregard them or piled up waste bags can be exposed to stormwater.

4. Parks and Open Space Maintenance Activities

The City Parks and Recreation Department frequently mows or hires a contractor to mow parks and open spaces. If not maintained correctly, vegetation debris can be left in drainage ways or in curb and gutter systems. This vegetation debris is carried to surface water and decomposes. The decomposition process adds to nutrient levels in the receiving waters.

Information regarding the storage and application of fertilizer for be found in the Fertilizer, Herbicide and Pesticide SOP in Appendix F of this document.

G. Municipal Employee Training

In order to inform City employees on practices to reduce stormwater pollution prevention, how to identify illicit discharges, and to reduce nutrient loading in receiving water bodies, the City trains employees on an annual basis. Training methods vary from year to year, but include video, PowerPoint and lecture presentations.

Employee training presentations can be provided upon request. Data on the number of employees and departments trained can also be provided upon request.

H. Other Control Measures

For information regarding other control measure implemented to reduce the discharge of pollutants from Municipal Facilities or Municipal Operations, please see “Good House Keeping and Municipal Operations Program” in Appendix F of this document. Also, further information can be found in the site-specific Municipal Facility Runoff Control Plan stored in the City of Brighton Utilities Department.

Please contact the City of Brighton Stormwater Division for further information or questions regarding material found in this Program Description Document.

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Brighton, CO 80601
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Appendix A

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STORMWATER

City of Brighton Stormwater Division Standard Operating Procedures (SOP): Illicit Discharge Detection and Elimination

Introduction

In order to fulfill Federal, State and Local illicit discharge detection and elimination requirements, the City of Brighton created the following Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedure manual. The City of Brighton Stormwater Division recognizes that an effective Illicit Discharge Detection and Elimination Program is essential to reduce the amount of pollutants in local ponds, streams and rivers. The goal is to implement a program to trace, eliminate and enforce illicit discharges that is clear to the residents of Brighton. It is the goal of the Stormwater Division to enforce like discharges with like elimination and enforcement action.

The IDDE SOP has been created to assist the City of Brighton Stormwater Division in identifying pollutants of concern, locating priority areas likely to have illicit discharges, describe standard operating procedures to trace an illicit discharge to its source, inspection procedures, notification requirements and enforcement actions to ensure the source of illicit discharges is removed. The plan is also a tool to educate municipal staff on illicit discharge recognition and reporting of such discharges.

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I. Pollutants and Activities of Concern

A. Pollutants of Concern

Stormwater runoff contains pollutants that can harm human health, degrade water quality and aquatic habitat, and impair ecosystem functions. On its way to streams and other receiving water bodies, stormwater runoff accumulates pollutants such as oil, gas, and other hydrocarbons, heavy metals, deicers, pesticides, sediment, fertilizers and bacteria.

Since the adoption of Colorado Department of Public Health and Environment (CDPHE) Regulation 85, the City of Brighton has identified the pollutants of greatest concern as nitrates, nitrogen, ammonia and phosphorus. Runoff from fertilized lawns, brine discharges from Brighton's Reverse Osmosis Water Treatment Plant and irrigation return flows from agricultural practices contribute excess nutrients to water bodies. Excess nutrients cause algal blooms which deplete dissolved oxygen and can result in the death of aquatic fauna.

II. Identifying Priority Areas

In order to place resources where they will have the greatest impact, it is important to evaluate the priority areas. In general, it is the City's experience that illicit discharges have a tendency to be:

1. **Solid wastes such as batteries, tires, sediments, pet waste, grass clippings and trash dumped into culverts**
2. **Motor oil or antifreeze leaks from residents' vehicles**
3. **Intentional or accidental dumping of oil, antifreeze, paint, gasoline, concrete washout water, gray water, cooking oil/grease down the storm drainage system**
4. **Discharges associated with commercial activities such as power washing, carpet cleaning and auto detailing. Commercial businesses are also a priority area for illicit connections.**

All of these pollutants can wash into receiving bodies of water during storm events. Understanding the typical sources of these pollutants and the impact each pollutant has can help the Stormwater Division to identify priority goals and objectives when managing stormwater.

Many illicit discharges are reported by City staff. Streets, Utility Maintenance and Code Enforcement employees spend a significant amount of time in the field. They are familiar with the City's storm sewer infrastructure and are trained to recognize and report illicit discharges to the Stormwater Division. The Stormwater Division also relies on citizens to report instances of illicit discharging through the Stormwater Hotline phone number or email address. This

reporting system allows the Stormwater Division to find and resolve illicit discharges into the storm sewer system.

III. Inspection Types and Frequency

Several opportunities for inspection are presented through typical Stormwater Division activities required by the MS4 permit from the CDPHE. The City attempts to proactively detect illicit discharges and connections. All newly installed wet utilities are inspected by Utility Inspectors during construction to ensure proper connection and to avoid cross connections between utilities. Existing storm infrastructure is dye tested, observed through closed circuit television, or smoke tested when needed and repaired if necessary. In addition, the City proactively inspects the storm sewer system to detect and eliminate illicit discharges and connections. The following types of inspections are performed by Stormwater Division staff:

1. Outfall Inspections

Annual Outfall Reconnaissance Inventory (ORI) inspections are conducted throughout the City by the Stormwater Division. In general, these outfalls are larger diameter pipes that discharge into the South Platte River, creeks and irrigation ditches. ORI Inspection forms are completed for each outfall and inspections are performed during the dry weather season, preferably during the months of October or November of each year. This is when irrigation ditches are dry and snow fall has not yet begun.

2. Illicit Discharge Detection and Elimination (IDDE) Inspections

IDDE inspections are performed throughout the year whenever there is a spill or discharge reported to the Stormwater Division. The Stormwater Division is tasked with responding to illicit discharge reports, tracing the discharge, eliminating the discharge and enforcing remediation actions. The City responds to small spills or leaks of known substances. For large discharges or unknown spills, the City relies on the Adams County Hazmat Team.

3. Other Inspections

Other visual inspections occur during field collection of GPS data, during storm sewer cleaning activities, and/or sanitary sewer investigations.

IV. Tools for Tracing an Illicit Discharge

When an illicit discharge is reported to, and confirmed by, the Stormwater Division, it is important to trace the discharge to its source and eliminate it. The Stormwater Division can use the following tools to trace an illicit discharge:

(1) Storm sewer maps- The City has extensive and detailed maps of all portions of the public MS4 and outfall locations. The location of inlets, pipes and directions of flow are available.

(2) Die tracer- A die tracer is a tablet that can be placed in stormwater that changes the color of the water. This can be useful when trying to follow stormwater flows from a specific point to another.

(3) Closed Circuit Television (CCTV)- The Stormwater Division, in partnership with the Utilities Maintenance Division, can utilize CCTV to gain insight on locations that staff cannot physically investigate.

(4) Aerial Photography- The Stormwater Division can utilize aerial maps in Geospatial Information System software to gain a good perspective of a location within the City.

(5) Field Inspection- The Stormwater staff can perform a field inspection to determine the location and/or cause of an illicit discharge. This includes a staff member physically opening storm drain manholes and looking in inlets.

(6) Citizen Input- The Division can rely on citizens to report the cause and location of illicit discharges. A thorough follow-up investigation will be performed by City employees.

(7) Property Ownership Identification- The Stormwater Division can utilize this information to contact the responsible party.

V. Recognizing an Illicit Discharge

All discharges to the stormwater drainage system, other than those listed below, are prohibited and enforced as illicit discharges.

(1) Water line flushing or other potable water sources

(2) Landscape irrigation or lawn watering

(3) Diverted stream flows

(4) Rising groundwater (Not including active or passive construction dewatering)

(5) Groundwater infiltration into storm drains

(6) Uncontaminated, pumped groundwater (Not including active or passive construction dewatering)

(7) Foundation or footing drains (Not including active or passive construction dewatering)

(8) Crawl space pumps

(9) Air conditioning condensation

(10) Springs

(11) Individual residential car washing

(12) Natural riparian habitat or wetland flows

(13) Dechlorinated swimming pool discharges

(14) Emergency firefighting activities

(15) Any other water source not containing pollutants

(16) Dye testing (with written notification from the Director of Utilities)

(17) Any discharge authorized by a National Pollutant Discharge Elimination System (NPDES) or Colorado Discharge Permitting System (CDPS) permit

(18) Stormwater runoff with incidental pollutants

(19) Water Incidental to street sweeping that is not associated with construction activities

(20) Irrigation return flows

VI. Inspection and Tracing Procedures

Although the ORI inspections and IDDE inspections have their own documentation system, both inspections and tracing functions are performed similarly for these two inspections.

If the inspector finds evidence of an illicit discharge during an IDDE or outfall inspection the following should be completed:

1. Assess the situation.

The first, and most important, step while conducting an illicit discharge inspection is to take in the totality of the situation. The inspector should consider the situation for public safety. If a situation is too dangerous to handle, or puts public safety or health in jeopardy, **call 911 immediately**.

2. Find the source of pollution.

The inspector should locate where the pollution is coming from and gain information from anyone already at the scene.

3. When possible, the inspector should contain the spill or discharge, absorb the discharge and provide inlet protection.

If this is not possible due to the presence of an unknown chemical or large quantity of hazardous material, the inspector should call the local Hazmat Team. If the spill is not hazardous in nature, the inspector can have the responsible party call a contractor to clean up the spill or discharge. The Utility Maintenance Division can also be a valuable resource in discharge response when no responsible party can be located.

The inspector can use the following methods to contain a spill:

a) Diversion

If it is safe and possible to do so, trained staff can use materials at hand to divert the spill or discharge away from an inlet or stormwater structure. An example of this method would be placing sand bags in the flow path of a discharge to direct the material away from the stormwater infrastructure.

b) Absorption

If it is safe and possible to do so, place absorbent material over the spill or discharge to contain the liquid. An example of this is placing floor-dry or cat litter on a small oil spill to prevent it from flowing in other directions.

c) Blockade

If it is safe and possible to do so, place material in front of an inlet or stormwater structure to stop the spill or discharge from entering. An

example of this is to place sand bags in front of an inlet to stop the discharge from entering.

d) Contact Other Divisions

If no action can be safely or effectively implemented, call 911 or other City Divisions as needed.

4. Collect contact information of the responsible party.

Information such as the person's name, phone number and address can be helpful when enforcing the illicit discharge. The responsible party may need to be contacted for remediation in the future or referred to another agency.

5. Visual Inspection

Try to make a visual estimate of the amount of material and the type of material. The type and amount of material will have a large impact on the environmental remediation that is required. During the visual inspection take note of the following characteristics:

(1) **Odor:** Illicit discharges may smell like a particular spoiled product, oil, gasoline, a specific chemical, or a solvent. The decomposition of organic waste in a discharge will release sulfide compounds. This release creates an intense smell of rotten eggs. Significant wastewater contributions will also cause pronounced and distinctive odors.

(2) **Turbidity:** Turbidity is characterized as water clarity and is often affected by the degree of gross contamination. Illicit discharge flows can be cloudy or opaque. Undiluted discharges, such as those coming from continual flow sources or intermittent spills, are often highly turbid. Wastewater is also often cloudy in nature.

(3) **Color:** Color may indicate illicit discharges. Industrial discharges and spills may be any color. Dark colors, such as brown, gray, or black, are most common.

(4) **Floatable Matter:** A contaminated flow may also contain floatable solids or liquids. Identifying floatable matter can aid in finding the source of the contamination. These substances are usually direct products or byproducts of the manufacturing process or the sanitary system. Examples of floatable matter are animal fats, spoiled food products, oils, plant matter, solvents, sawdust, foam, packing materials, and fuel.

(5) **Deposits and Stains:** Deposits and stains (residues) are any type of coating that remains after a non-stormwater discharge has ceased. They usually are of a dark color and cover the area surrounding the stormwater discharge. They often contain fragments of floatable substances and, at times, take the form of a crystalline or amorphous powder. For example, white crystalline powder may form on storm sewer outfalls from nitrogenous fertilizer wastes.

(6) **Vegetation:** Pollutants often cause a substantial alteration in the chemical composition and pH of the discharge water, which can affect plant growth even when the source of contamination is intermittent. For example, nutrients from various food product wastes increase plant growth. In contrast, the discharge of chemicals like gasoline and oil will kill vegetation.

(7) **Structural Damage:** Structural damage can be caused by machines, improper maintenance, or industrial discharge contamination. Cracked, deteriorated concrete or peeling surface paint at an outfall usually indicates the presence of severely contaminated discharges.

6. Take pictures.

Whenever possible and safe to do so, take pictures of the discharge and the surrounding area.

7. Use the resources available in section IV. above to track the discharge or spill.

By using all the resources available, the inspector can determine the direction of travel of the discharge and determine if the discharge will have an impact on downstream stormwater infrastructure. If it is possible and safe to stop the discharge along a conveyance route, do so.

8. Take water samples when needed.

If it is possible and safe to do so, take sample of the discharge to confirm what the material is. Samples from downstream infrastructure can also be taken to determine if the discharge has a wider ranging effect. Samples can be sent to a lab for analysis. The large the impact of the discharge, the larger the environmental response and remediation will be.

9. Complete inspection form.

Complete the inspection form in the City database.

10. Assess notification requirements.

Some discharges and spills require notification of other agencies in the affected area. These may include other local, state or federal agencies. Reporting requirements can be found on the CDPHE website at: https://www.colorado.gov/cdphe/

11. Track time and materials spent in the case reimbursement is requested.

If a City reimbursement for time and material is warranted, it is important to have these items documented.

VII. Procedures for Eliminating and Enforcing an Illicit Discharge or Connection

An inspector should consult his/her immediate supervisor before attempting to eliminate an illicit discharge or connection. No action should be taken alone. Informing a responsible party

that they have committed an environmental crime and need to remediate the situation can put human safety in danger. Depending on the severity of the discharge, the situation could turn into a legal matter than will include several other individuals and/or agencies. The following actions may be taken to eliminate and enforce an illicit discharge:

The enforcement actions are not considered to be in any particular order.

1. Written Notice of Violation and Compliance Order

The discharger or person that directly/indirectly caused the discharge shall receive an official document stating the nature of the violation and compel the discharger to perform an action. This action may be to disconnect an illicit connection, remediate a discharge or require that discharges cease and desist. The official notification will be hand delivered or sent via Certified U.S. Mail.

2. Municipal Summons (Criminal Action)

The discharger shall receive a summons to the Municipal Court of the City of Brighton. The guilt or innocence of a discharger shall be decided by a Court of Law and/or by a jury of his or her peers. This enforcement action may carry jail time and/or fines enforced by the Court.

3. Verbal Notice of Violation and Compliance Order

The discharger shall receive an official verbal directive stating the nature of the violation and compel the discharger to perform an action. This action may be to disconnect an illicit connection, remediate a discharge or require that discharges cease and desist. The official notification will be verbally stated to an illicit discharger.

4. Suspension or Termination of MS4 Access

The Director of Utilities may suspend, without prior notice, discharge access to the public MS4 to a person when it is deemed necessary to prevent an actual or threatened discharge that may place public or environmental health at risk.

5. Monetary Penalty (Administrative Action)

The discharge shall be required to pay a fine to cover the administrative cost of an illicit discharge. This can include inspection fees and payment for time that City staff has spent on resolving an illicit discharge.

6. Remediation of Illicit Discharge

In the case that a discharger does not follow directives to remediate an illicit discharge and the City is left with the burden, the discharger shall be charged for the work completed by the City or a contractor that is hired.

7. Performance of Monitoring, Analysis or Reporting

The discharger shall be directed to monitor or hire a contractor to monitor the impact of an illicit discharge. The discharger may also be directed to report on a remediation effort or other task as directed.

8. Implementation of Source Control and/ or Treatment BMPs

The discharger shall be directed to implement a control measure or treatment best management practice to control a source of pollution or reduce the impact of the source.

The City response need not follow a certain escalation ladder, but rather the enforcement shall be proportionate to the discharge involved or the recalcitrance of the violator. For example: discharges/dischargers that may compromise the safety of human life shall not be administered a Written Notice of Violation in the mail. A more immediate and direct action shall be taken.

Enforcement actions are carefully administered to ensure consistent enforcement of like violations.

VIII. Documentation and Reporting

A. Documentation

For ORI annual inspections, an ORI Inspection Form must be completed in the City database for every outfall.

For IDDE inspections, an Illicit Discharge Detection and Elimination Inspection Report shall be completed in the City database for every compliant, spill, or illicit discharge.

For both inspections, documents and evidence shall be retained for at least three years after the permit tem has expired.

1. Field Notes

The inspector will often have to take specific notes on several variables. The notes will includes all observations taken during the inspection process. When recording notes about the sites, the inspector should be as objective, specific, and consistent as possible. The field notes shall be attached to the inspection form.

2. Pictures

If any illicit discharge is present, the Inspector shall take dated pictures whenever possible. The dated pictures will accompany the inspection form.

3. Water Sampling

A water sample may be taken to determine the type and/or source of the illicit discharge. The water sample will be sent to a lab for analysis. The analysis findings shall be attached to the inspection form.

4. Inspection Report

The report entails all the above items. Reports shall be stored in City databases.

B. Reporting of Illicit Discharges

After the field inspection is completed by the inspector, the situation shall be brought to the attention of his/her direct supervisor. Some spills and illicit discharges are required to be reported to other government agencies.

1. State of Colorado

The State of Colorado asks that all spills and illicit discharges be reported to the emergency reporting line within 24 hour of the discharge. A written statement of the discharge or spill is required within 5 days of the event. The State will decide from the discharge description if a response is warranted.

a) 24-Hour Spill Reporting Hotline- 1-877-518-5608

2. Tri-County Health Department

If the spill or discharge will affect human health, report the spill to Tri-County Health Department.

a) Tri-County Health Department- 303-220-9200

3. U.S. Environmental Protection Agency (EPA)

Visit the EPA website for reporting details at www.epa.gov.

IX. Hazardous Situations

A. Emergencies and Incidents

There are instances in which an inspector may witness an accident or someone dumping a strange liquid or an unidentified object down the storm drain system. If this occurs, do not try to handle the situation alone. Call 911 immediately. Prior to going out in the field, the inspector should become familiar with City directives related to incident reporting and work-related injuries/illnesses.

B. Hazardous Material Response

Hazardous materials incidents encompass a wide variety of potential situations including fires, spills, transportation accidents, chemical reactions, explosions, and similar events. Hazards involved may include toxicity, flammability, radiological hazards, corrosives, explosives, health hazards, chemical reactions, or a combination of factors. The City of

Brighton has a Hazardous Materials Response Team, part of the Brighton Fire Rescue District, trained to the Hazardous Materials Response Operations Level, (defined by NFPA 472 and Standard Operating Guidelines). These plans provide a general framework for handling a hazardous materials incident. It is not the duty of the inspector to participate in the Hazardous Materials Response. However, it is necessary for the inspector to provide documentation that a 911 call was made as well as a brief description of the situation on the Illicit Discharge Detection and Elimination Inspection Report.

X. Permitted Industrial Discharges

In the event that a permitted discharger within the City MS4 boundary is found to have a negative effect on water quality, the Stormwater Division shall report the incident to the Colorado Department of Public Health and Environment Emergency line within 24 hours of discovery. A report detailing all aspects of the incident will be submitted to the CDPHE within 15 days of the discovery of the event. The report shall include the following:

(1) Location (address/intersection)

(2) Quantity (estimated volume)

(3) Nature of the substance (color/odor, type of chemical, liquid, solid)

(4) Date, time, and duration of the spill or discharge

(5) Description of the affected area

(6) The cause (if known) or origin of discharge

(7) Is the discharge flowing into a waterway?

(8) Any information on suspicious activities

(9) Names of people potentially involved in the spill or dumping.

(10) List of other agencies notified, including date.

XI. Training

The Stormwater Division is responsible to provide annual IDDE training to applicable employees. Each Department/Division is responsible for implementing IDDE requirements throughout the year. The training includes how to identify an illicit discharge and how to direct the information concerning an illicit discharge to the appropriate City staff.

A. Identifying an Illicit Discharge

City staff is trained to detect the signs of an illicit discharge. The Stormwater Division provides presentations, visual representations, and question/answer sessions to train employees. The following are appropriate methods of employee training:

1. PowerPoint Presentation

2. Video

3. Lecture

B. Reporting to the Stormwater Division

All spills and/or illicit discharges must be reported to the Stormwater Division **immediately**. The Division has the most training and will respond to the location and further assess the situation. Reporting can be done through City email, phones, cell phones or in person. City employees are trained on collection of the appropriate information to provide to the Stormwater Division. Employees reporting an illicit discharge are requested to report as many of the following as possible:

(1) Location (address/intersection)

(2) Quantity (estimated volume)

(3) Nature of the substance (color/odor, type of chemical, liquid, solid)

(4) Date, time, and duration of the spill

(5) Description of the affected area

(6) The cause (if known)

(7) Is the discharge flowing into a waterway?

(8) Any information on suspicious activities

(9) Vehicle license number

(10) Names of people potentially involved in the spill or dumping.

(11) List of other agencies notified, including date.

XII. Training Materials

1. PowerPoint Presentation

PowerPoint presentations with video/images concerning illicit discharges can be used to train employees. The PowerPoint should include an overview of the

Division and stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

2. Video

A video training should be prefaced by a narrative overview of the Division. The video should include an overview of stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

3. Lecture

A lecture style training shall include an overview of the Division and stormwater in general, how to detect an illicit discharge and how and what to report to the Stormwater Division.

Appendix B

Brighton
500 South 4th Avenue Brighton, CO 80601
www.brightonco.gov 303.655.2000

STORMWATER

City of Brighton Stormwater Division Standard Operating Procedures (SOP): Construction Site Runoff Control Program

Introduction

The City of Brighton Stormwater Division recognizes that an effective Construction Site Runoff Control program is essential to minimize the amount of pollutants introduced to stormwater runoff from construction sites. The stormwater runoff is discharged into local ponds, streams and rivers. The goal is to implement an adequate oversight, inspection and enforcement program for construction activities within the City of Brighton.

In efforts to ensure compliance with MS4 Permit requirements, standard operating procedures (SOP) were developed and implemented for oversight of construction sites. This document provides a consistent framework for conducting site plan review, inspections and implementing enforcement procedures. The goal is to provide guidance to the inspector to achieve consistency in site plan reviews, inspections, calibration in compliance determinations, and enforcement.

Contents

Erosion and Sediment Control Permit Required

The City Code mandates that all construction sites disturbing over one (1) acre of land or is part of a larger common development that disturbs over one (1) acre of land will be regulated under a permit. The regulation of a construction site is embodied within the City of Brighton Erosion and Sediment Control (ESC) permit. City Code allows for construction sites granted an ESC permit to be inspected by the City. If an inspector finds violations of the permit terms and conditions and/or City Ordinances during an inspection, the City has the authority to enforce sanctions upon the permitted party.

To read the City of Brighton Municipal Code pertaining to construction activities and the ESC permit, refer to Chapter 14, Article 14-2, Section 14-2-40 to 14-2-120.

I. Exemptions from Permit Coverage

There are exemptions to coverage under the City's ESC permit. The exemptions exist due to oversight by another regulatory agency, extent of disturbance area and existing site conditions. The following sites are exempt from coverage under the City of Brighton ESC permit:

A. Agriculture

Land zoned for and used for agricultural purposes are exempt from permit coverage for any land disturbing activity.

B. Mining Activities

Any gravel, sand, dirt, or topsoil removal activity authorized pursuant to Colorado Mined Land Reclamation Board is exempt from permit coverage.

C. State Permit Exempt

Any construction activity waived or exempt from coverage under the State of Colorado Discharge Permitting System shall not be required to obtain an ESC permit. For a list of exemption from the state permit, please visit their website at www.colorado.gov/cdphe.

D. Site Size

Sites that disturb less than one (1) acre of land and are not part of a larger common development are exempt from permit coverage.

Pursuant to City Code, sites that are exempt from permit coverage are still required to use best management practices (BMP) to prevent stormwater pollution from construction activities. Sites are still subject to illicit discharge enforcement.

II. ESC Permit Requirements

During the application process, the following documents need to be attached to the application:

1. Signed Application

One copy of the signed application with all required information must be submitted. The signature is acknowledging that the applicant has received a copy of the City's Enforcement Policy.

2. State Stormwater Discharge Permit

One copy of the State of Colorado stormwater discharge permit shall be submitted. If the permit has not been received, a copy of the application can be submitted at the time of application.

3. Financial Guarantee

The City of Brighton requires that the site operator provide a financial guarantee for erosion and sediment control. The guarantee is held to ensure that the operator installs and maintains BMPs on-site.

4. Stormwater Management Site Narrative

The City of Brighton requires that the site operator submit a site-specific Stormwater Management Plan (SWMP) narrative for review.

5. Stormwater Management Civil Plan

A copy of the Civil erosion and sediment control plans showing the placement of BMPs throughout the site must be submitted.

After the complete application is received, a Permit Technician will upload all relevant documents to the City's work flow system (Innoprise). The permit will then go to the appropriate City staff for review and approval. The review of the permit application involves checking the site narrative and plan for all necessary items.

III. Site Narrative and Plan Review

The appropriate staff from the Stormwater Division is responsible for ensuring that the site plan and narrative meet or exceed the City's Ordinances, standards and specifications. The staff member will receive notification through the work flow system that there is an ESC permit application to review. The Stormwater Division shall follow the document titled "SWMP Review Checklist," to ensure that all required items are addressed. If the site narrative is found to contain all required information, the permit will be approved. If any items are found to be excluded, the Stormwater Division shall deny the permit and include the reason for the denial. The applicant will be responsible to address all comments made by the City and resubmit the appropriate documents for approval. Construction activities are prohibited from commencing before an ESC permit is issued.

IV. Inspector Roles and Qualifications

It is imperative that an inspector be qualified for the roles he/she must perform. Upon employment with the City of Brighton Stormwater Division, an inspector should receive training in the following categories:

1. Professional Training

An inspector shall attend an accredited training course to become certified in Erosion and Sediment Control. This certification course may be offered through a higher education program or another accredited institute.

Throughout an inspector's career, he/she should attend professional lectures and training sessions to continue to generate a high level of knowledge in the field of stormwater pollution prevention.

2. Field Training

An inspector should be trained in the field with an experienced professional in stormwater protection. The training should focus on the six minimum control measures found in a Municipal Separate Storm Sewer System general permit; public education and outreach, public involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and good housekeeping.

V. Preconstruction Meeting

Upon approval of the ESC permit by the Stormwater Division and the Permit Technician, a preconstruction meeting is scheduled through the workflow system.

The Stormwater Division provides compliance assistance and maintains guidance materials to provide information during the preconstruction meeting. The goal is to assist contractors/landowners in the comprehension of compliance expectations and provide any information the contractor will need throughout the course of the construction activity. The inspector does not provide site-specific assistance to select best management practices, however, information is provided to allow the operator to understand and make these determinations.

The following shall be addressed during the preconstruction meeting:

A. Welcome the contractor to the City.

B. Explain the purpose and goal of the stormwater program

The Stormwater Division will assist in contractor compliance with the Colorado State Stormwater permit and the City of Brighton ESC permit by ensuring BMP's are implemented and maintained properly to proactively prevent erosion, sediment travel, and stormwater pollution. The Stormwater Division will also enforce compliance with

permit regulations and City Ordinances when necessary to protect stormwater quality and the environment.

C. Explain responsibilities of the construction site operator/owner

Topics to address are BMP installation/maintenance, 14-day and post-precipitation/snowmelt inspections, and SWMP requirements.

D. Explain the City's stormwater inspection process

Explain that inspections can be announced or unannounced monthly inspections, compliance inspections or resident complaint inspections. Ensure that the contractor understands that the City inspector has the right under City Ordinances to access the site at any time for official purposes.

E. Explain the role of the Federal, State and Local Inspectors

F. Explain jurisdictional overlaps

Within the City, many jurisdictional overlaps may occur. Colorado Department of Transportation Right-of-Way (ROW), Adams/Weld County, Commerce City, Thornton, Beebe Draw Metro District, Ditch Companies, and railroad ROW overlaps may occur on construction projects. The project may need several permits over the course of the construction.

G. Explain stormwater requirements and similarity between other cities, counties and states

Stormwater regulations occur at all government levels throughout the United States. There are similarities and differences with all programs. It is the site operator's responsibility to understand the regulations of the governing body.

H. Explain different City inspectors' roles

There are inspectors for many aspects of the construction project. The Streets Department will inspect any work completed in the City's Right-of-Way and Utility Inspectors will inspect the construction of or connection to any City Utilities. Contact with the Stormwater Division will be the first and last contact contractors have with City inspectors.

I. Set expectations

The inspector will set expectations that the City has of the Contractor and any sub-contractors working under the ESC permit. Discuss preparation, implementation, record retention, maintenance of BMPs, spill response, enforcement procedures and the phased implementation of BMPs throughout the construction project.

J. Describe ESC Standard notes

The City of Brighton Standard Erosion and Sediment Control notes, found on the City's Stormwater website, are a summary of the permit regulations.

K. Refer contractor to detail drawings

Refer the contractor to the detail drawings in the approved Civil Drawings and/or SWMP. Remind the contractor that all BMPs will be installed according to these details.

L. Describe Final stabilization goal

Describe to the contractor that the site will need to be permanently landscaped or 70-percent re-vegetated before a financial guarantee and/or permit can be released.

M. Discuss public notice signage

The City requires that a site notice be posted in a conspicuous spot on the site. The sign will have the contact information of the contractor and the Stormwater Division.

N. Discuss communication styles/preferences

Confirm with the contractor the best route of communication for inspection results and any other communication.

O. Discuss the site entry requirements

What personal protective equipment is required? Is there a sign-in process?

P. Collect field contact information and immediate supervisor contact.

Q. Discuss ESC permit bond release requirements (if applicable)

In order for the financial guarantee to be returned to the responsible party, the inspector must ensure that all BMPs have been removed and the site is re-vegetated or final landscaped.

In addition to the assistance provided during preconstruction meetings, the Stormwater Division staff provides one-on-one assistance to contractors, engineers and landowners via phone, email, meetings and during routine inspections. The Stormwater Division has also developed documents to help identify permitting requirements. These documents are available on the city webpage at www.brightonco.gov.

The preconstruction meeting must be completed before any construction activity commences.

VI. Inspection Schedule

The Stormwater Division assembles an inspection schedule at the beginning of each calendar year. Construction sites are added to the inspection scheduled at the time the site receives an ESC permit.

Inspections take place the first two days of the first two weeks of the month. Sites are inspected at a minimum of every 45 calendar days. Compliance Inspections are completed on Friday of the week that the site was initially inspected to ensure that all noted findings have been addressed.

VII. Types of Inspections and Personal Protective Equipment

A. Person Protective Equipment (PPE)

Before an inspector enters an active construction site, it is mandatory to ensure that all required PPE is in place. The following items shall be on the inspector's person while on an active site:

a) Hard hat

The inspector shall have a hard hat issued by the City of Brighton and rated for the purpose of construction activities.

b) Safety boots

The inspector shall have safety boots issued by the City of Brighton with steel toes. No other shoe is permitted on construction sites by the Stormwater Division.

c) Reflective safety vest

The inspector will wear a reflective safety vest at all time while on an active construction site. A certified vest will be issued to the inspector by the Stormwater Division.

d) Safety glasses

Safety glasses will be worn while inspecting a construction site. Safety glasses will be issued by the City.

e) Protective gloves

Gloves will be required to be worn on construction sites. Gloves will be issued by the City.

B. Monthly/Routine Inspection

This type of inspection is conducted at least every 45 calendar days as required by the City of Brighton MS4 permit. There are two types of routine inspections.

1. Full-Level Inspection (Routine)

This inspection is conducted to assess the adequacy of BMPs and overall site management. This inspection is performed by a qualified inspector. A full-level inspection form is filled out by the inspector and correspondence is sent to the contractor to address any instances of non-compliance with issued permits.

During a full-level inspection, contractors are encouraged to join the inspector to discuss the findings at the site. Direct contact with the responsible party can increase compliance and reduce findings in the future.

During the inspection, the following should take place:

a) SWMP Compliance

The inspector should remind the site operator that City Code requires that the SWMP be updated within 72 hours of any changes.

b) Pollution Sources

The inspector should evaluate if there are any sources of stormwater pollution at the site. This may include portable toilets that have been knocked over or chemicals without secondary containment. The inspector shall include the concrete washout during this portion of the inspection.

c) BMPs inspection

The inspector should make an in-depth inspection of the BMPs in the field. Ensure that BMPs are installed per approved specifications and maintained appropriately. The inspector should also assess the site for locations that additional BMPs need to be installed.

d) Discharge location inspection

The inspector shall visit all discharge locations from the site to look for discharges that are not permitted from the site. The discharge point can be found in several locations. The site may discharge to a storm sewer, detention pond, creek, river and many other locations. The inspector shall look for sediment laden runoff, strong odors, and oddly colored stormwater.

e) Construction Dewatering

The inspector should, if applicable, inspect the discharge from construction dewatering. The inspector should look for turbid water or other indication of pollutants being discharged off site.

f) Pictures

Dated pictures shall be taken of all instances of non-compliance for record of the inspection and findings.

If the inspector notes any findings that have an impact on water quality or that may lead to non-permitted discharges, the inspector should contact the responsible party immediately. The contractor should correct the finding while the inspector is on-site to minimize the possibility of stormwater pollution.

C. Compliance Inspection (reduced level)

Compliance inspections are a reduced level inspection conducted to ensure compliance with items noted during a full level inspection. All findings from a previous inspection will be re-inspected to ensure that corrections have been made. If findings previously noted are not addressed appropriately, the inspector shall use an enforcement action to ensure compliance.

D. Final Inspections (full level)

A final inspection is completed to ensure that all BMPs have been removed from the site and the site has reached 70-percent vegetation. The inspector shall check all locations of the site for compliance. This will be the last inspection before permits are closed and financial guarantees are returned to the responsible party. The inspector shall note any instances of non-compliance and have them addressed before the permits are closed. A punchlist of items to be corrected shall be submitted to the responsible party after the inspection. If items are noted on the punchlist, a compliance inspection shall be completed before the return of the financial guarantee and permits are closed.

Lastly, the inspector should remind the contractor about record retention regulations and to send the inactivation notice to the Colorado Department of Public Health and Environment.

E. Citizen Complaint (reduced level)

Citizens have several opportunities to comment on construction activities in the City. The citizen can reach the Stormwater Division through direct contact, through the Stormwater Hotline email or phone number and through other City employees. If a citizen complaint is received by the Stormwater Division, the City inspector shall respond to the site within a reasonable amount of time to address the concern. This inspection is a reduced level inspection and should focus on the area of concern reported by the citizen.

VIII. Post Inspection Procedures

A. Data Entry

Upon leaving the facility, several steps need to be taken to appropriately document the inspection.

1. Field Notes

Any notes taken during the inspection should be recorded in the inspection report folder or database. Notes can include areas to observe in the future or other relevant thoughts.

2. Inspection Form

The inspection form needs to be filled out in its entirety and stored with the inspection report. This form will note any deficiencies in management of the site. The form will be certified by the inspector.

3. Photographs

Photographs taken during the inspection shall be printed, labeled and incorporated within the inspection report.

B. Data Transmittal

The results of the inspection shall be transmitted to the responsible party and others to make them aware of the inspection/findings. This is an important step; if the contractor does not know there was a finding, it cannot be corrected. In this communication it shall be stated that if the responsible party needs additional, reasonable, time to complete a correction, the Stormwater Division shall be contacted.

This communication shall be noted on the field notes and saved in the City database for use in enforcement and reporting purposes.

IX. Stormwater Management Plan Alterations

City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-100 give the Director of Utilities the authority to require that the SWMP be altered and other BMPs be installed at the site. If an inspector believes that additional BMPs are needed to prevent stormwater pollution, he/she shall contact their direct supervisor.

A stormwater management plan is an ever changing document. Engineers designing the plan cannot foresee all conditions that will exist on the site. The requirement to alter the SWMP is a very common occurrence.

X. Best Management Practice Maintenance

City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-90 requires that all contractors with an ESC permit from the City maintain the BMPs on-site and do so promptly. Please refer to the section of the Municipal Code stated above for further information.

XI. Enforcement

While conducting a compliance inspection the inspector notes any instances of non-compliance from the responsible party and the responsible has not contacted the Stormwater Division for a time extension, an enforcement action shall be warranted.

The City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-110 allows for enforcement for non-compliance by a responsible party. The enforcement actions are not

considered to be in an escalation ladder, but rather the enforcement action shall be proportionate to the instance of non-compliance. Factors such as the probability of stormwater pollution and protection of the environment should be considered when selecting an enforcement action.

The following actions are appropriate enforcement for non-compliance:

1. General Finding

After an inspection takes place and corrections need to be made to remain compliant with the permit, the results should be sent to the site operator. This will allow the operator to make the appropriate corrections at the site.

2. Written Notice of Violation and Compliance Order

The permitee or responsible party shall receive an official document stating the nature of the violation and compel the permitee to perform an action. This action may be to maintain BMPs, install BMPs or to perform some other scope of work. The official notification will be hand delivered or sent via Certified U.S. Mail.

3. Municipal Summons (Criminal Action)

The permitee shall receive a summons to the Municipal Court of the City of Brighton. The guilt or innocence of a permitee shall be decided by a Court of Law and/or by a jury of his or her peers. This enforcement action may carry jail time and/or fines enforced by the Court.

4. Verbal Notice of Violation and Compliance Order

The permitee shall receive an official verbal directive stating the nature of the non-compliance and compel the responsible party to perform an action. This action may be to maintain BMPs, install BMPs or to perform some other scope of work. The official notification will be verbally stated to the responsible party of permitee.

5. Monetary Penalty

The permitee or responsible party will be fined for re-inspection of a site until compliance is reached.

6. Work Performed by City or Contractor

In the case of non-compliance the City can perform BMP maintenance or installation or hire a contractor to complete the work. The City will charge the responsible party for the work completed. If the invoice for completed work is not paid in full, the City shall place a lien on the property.

7. Stop Work Order

The Director of Utilities can place a stop work order on a construction site until compliance is reached. A construction site under a stop work order is not allowed to continue any construction activities.

XII. Enforcement Examples

A. Construction Activity Prior to Site Review

If a site should commence construction activities prior to the site review and ESC permit issuance, the site should receive a stop work order from the Division. The stop work order will be released upon the site review and issuance of the permit.

B. Unmaintained Control Measures

In the course of completing a routine (full) inspection an inspector finds that control measure in the field are not being properly maintained, the site operator shall receive a notice of general finding. This general finding will be outlined in the site inspection report. If the site has been temporarily shut down, the site operator shall still receive a notice of general finding in the form of a site inspection report.

C. Uncorrected Findings

If general findings are discovered to not be corrected during a follow-up (compliance) inspection, the operator shall be fined for a re-inspection and given a new compliance date. If findings are still not corrected during the second compliance inspection, the site operator shall be issued a notice of violation and compliance order.

D. Discharge of Pollutants Off-Site

If it is found that a pollutant has been discharged out of the operator area of control, to State Waters or to the City of Brighton MS4, the site operator shall immediately receive a verbal notice of violation and compliance order. This verbal notification shall be follow by a written notice of violation, if needed. If findings are not addressed by the compliance date in the notice of violation, a stop work order shall be issued at the site until such time that the Division determines that all findings have been appropriately addressed.

XIII. General Guidance (threats, questioning techniques, further assistance)

A. Questioning Techniques

In general, the inspector should not ask leading questions. Instead, open-ended questions should be phrased in a manner that allows contractors or other individuals to provide all necessary details. In most instances, the use of simple, direct and open-

ended questions is the most effective method for obtaining information. Direct yes/no questions should be used for verification or clarification purposes only.

If the responsible party or contractor does not provide an adequate answer to a question, the inspector should pursue the question until a complete answer is received. The inspector should try to ask the same question in several different ways until the pertinent information is received. If possible, the inspector should question other employees in order to resolve the issue. The inspector should use a logical questioning pattern while obtaining information. When asking critical questions, the inspector should include the phrasing of the questions and answers in the report.

B. Denial of Access to Site

According to the City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-100, a City inspector has the authority to enter upon a permitted site for reason of inspection. The inspector cannot be denied access to the site. If the inspector is ever denied access, the inspector shall cite the City of Brighton Municipal code to the contractor in an effort to gain access. If access is still denied to the inspector, he/she shall record information about the situation, the person denying entry and any information deemed necessary. The inspector shall leave the site promptly and report the situation to his/her supervisor. The supervisor is responsible for contacting City legal counsel regarding the incident.

C. Threats to City Employees

If you or another City employee is threatened during an inspection, you must **immediately** leave the facility. You must contact your supervisor and discuss the circumstances. If a City employee is injured or fears for his/her safety, **dial 911 immediately.**

D. Imminent Hazards

If an imminently dangerous condition is encountered, the inspector should leave the site and consult his/her supervisor. Outside agencies, such as the Health Department or Fire Department, may need to be contacted. All concerns should be well documented and included in the report. Imminent hazards can include a variety of circumstances such as someone smoking near an ignitable liquid, someone with a firearm, or the venting of a toxic chemical.

Appendix C

Erosion and Sediment Control (ESC) Permit Application

Please allow five (5) business days for the ESC Permit application review process.
THIS PERMIT SHALL EXPIRE ONE YEAR FROM THE DATE OF ISSUANCE.

Submit the ESC permit application to:	Erosion and Sediment Control is required for all land disturbance activities equal to or greater than one (1) acre, OR for land disturbance activities less than one (1) acre that are part of a larger common development that shall disturb more than one (1) acre.
One Stop Customer Service Center 500 S 4th Ave, Brighton CO 80601 303-655-2017	

Site Area/Application Fees:

☐	<1 acre = $50.50	☐	5 acres to <10 acres = $100.50	☐	20 acres and above = $250.50
☐	1 acre to <5 acres = $60.50	☐	10 acres to <20 = $150.50		

Project Information:

☐	Building	☐	Site Improvement	☐	Right-of-Way	☐	Other (defined in project description below)

Project/subdivision name:					
Address/location:					
Filing/block/lot: (attach separate list if necessary)					
Site area: (total acres that will be disturbed)		Estimated start date:		Estimated completion date:	
Project description:					
Site drains to:					
Colorado State Stormwater Permit # "COR-03-":		☐ Certification pending (attach copy of state application) ☐ Signed agreement with permit holder (attach copy with application)			
Estimated cost of Best Management Practices (BMP): (cost incurred to manage erosion/stormwater and site stabilization)	$				

Note: A financial guarantee is required for the ESC permit to be issued. If bonding for the ESC is included in the overall development bond for the project, an itemized list and estimated cost of erosion control BMPs must be listed with that agreement's schedule of improvements; otherwise a separate ESC Bond will be required. For BMPs cost estimate spreadsheet, see page 5 below.

Contact Information:

Construction company: (responsible for compliance to SWMP)					
Lead contractor name:		Lead contractor title:			
Company address:					
Company phone:		Contact mobile:			
Contact e-mail:					
Land ownership:	Company name:				
	Land owner name:				
Address:					
Phone:		Mobile:			
E-Mail:					
Primary site contact: (responsible party on site)	Name:				
	Title:		Mobile:		

Submittal Requirements

The following information shall be submitted with any ESC permit application. In most instances, an ESC permit is required prior to any site mobilization.

ESC permit submittals shall include:

- ☐ ESC Permit Application - signed – one copy;
- ☐ State Stormwater Permit – one copy*; or
    - State Stormwater Permit Application – one copy;
- ☐ Financial Guarantee – original, wet-stamped and sealed copy**;
- ☐ Stormwater Management Plan (SWMP)*** – one copy;
- ☐ Erosion control civil plan** - one copy;

NOTE: If your Company will be covered under the Developer's State Stormwater permit, then a written and signed agreement between both companies needs to be submitted in addition to the Developer's ESCP/SWMP. The agreement must address ESC permit requirements and responsibilities.

* * *

** The State of Colorado requires that all applicable land disturbing projects apply for a Stormwater Permit at least ten (10) days prior to commencement of work. For additional information, please visit www.cdphe.state.co.us.*

***For minimum bonding requirements and conditions for reduction/release of bonding, please contact Pennie Snow – 303-655-2023 or psnow@brightonco.gov or visit www.brightonco.gov .*

***The ESCP/SWMP must meet the requirements prescribed by the Colorado Department of Public Health and Environment. For additional guidance, please visit www.cdphe.state.co.us or www.brightonco.gov .*

* * *

Acknowledgement Certificate:

By my signature affixed hereto, I acknowledge that I have received a copy of the City of Brighton Stormwater Quality Enforcement Policy (attached hereto). I have read and fully understand my responsibility as it pertains to this policy and agree to abide by the guidelines set forth therein, including the right of entry provisions, which allow Brighton Inspectors the right to enter the subject property, where reasonable cause exists, to ascertain whether there may be a violation of the requirements of Chapter 14-2 of Brighton's Municipal Code. I agree to hold the City of Brighton, its agents, employees, and assigns exempt from any legal action or liability on account thereof. I understand that these policies are continually evaluated and may be amended from time to time without notice and at the sole discretion of the City of Brighton. I understand that the Erosion and Sediment Control (ESC) permit issued from the review/approval of this application shall expire one year from the date of issuance. I also certify under the penalty of perjury that all information contained in this application is true and accurate to the best of my knowledge.

Signature of Applicant *Printed Name*

Title of Applicant *Date of Application*

For more information please contact Utilities Department, Stormwater Division at (303) 655-2136, or visit www.brightonco.gov and navigate to the Utilities Department - Construction Site Stormwater Management page.

ESC Cost Opinion Spreadsheet

Item #	BMP	ID	Unit	Installation Unit Cost	Maintenance as % of Install	Install and Maintenance Unit Cost	Quantity	Cost
1	Check dam	CD	lin ft		25%			
2	Check dam (reinforced)	CDR	lin ft		25%			
3	Concrete washout area	CWA	each		200%			
4	Construction fence	CF	lin ft		25%			
5	Construction markers	CM	lin ft		50%			
6	Culvert inlet filter	CIF	lin ft		25%			
7	Dewatering	DW	each		50%			
8	Diversion ditch (unlined)	DD	lin ft		25%			
9	Diversion ditch (ECM or plastic)	DD	lin ft		10%			
10	Sediment/erosion control matting	ECM	sq yd		25%			
11	Inlet protection	IP	lin ft		50%			
12	Reinforced rock berm	RRB	lin ft		25%			
13	Sediment basin [1]	SB	lin ft		25%			
14	Sediment control leg (wattle)	SCL	lin ft		25%			
15	Seeding and mulching	SM	acre		50%			
16	Silt fence	SF	lin ft		75%			
17	Slope drain	SD	lin ft		10%			
18	Stabilized staging area	SSA	sq yd		50%			
19	Surface roughening	SR	acre		25%			
20	Temporary stream crossing	TSC	each		25%			
21	Topsoil (6-inch lift)	TSL	acre		25%			
22	Vehicle tracking control[2]	VTC	each		100%			

Contractor added BMP(s)[3]

23								
24								
25								
26								
27								
28								

Notes:
[1]Quantity for sediment basin in bottom width in linear feet
[2]vehicle tracking control cost shall include surety for curb, gutter, and sidewalk repair
[3]negotiate % on a case by case basis between the city and contractor/owner with a minimum of 25%

Subtotal	
Contingency @ 15%	
Total Estimated Cost	

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Stormwater Quality Enforcement Policy

Inspections

Stormwater inspections are to be performed by the contractor of record, at a minimum, once every fourteen (14) calendar days on active construction sites, after a significant storm event that may cause erosion, and on a monthly basis on completed sites to monitor re-vegetation. It is the contractor's responsibility to perform more frequent inspections when needed to effectively address maintenance and repair of Best Management Practices (BMPs). As part of the site's stormwater inspections, the contractor is required to fill out an Erosion and Sediment Control Inspection List (ESCIL) or equivalent. The ESCILs must be maintained on site and made available to city inspectors upon request. A template of this form is available on the city's website, or upon request at the One-Stop Customer Service Center.

In addition, to enable effective communication and quick response to any stormwater quality control deficiencies, the city encourages the contractor to join and participate during city inspections. City inspections are either announced or unannounced. In general, inspections are performed on a monthly basis but could be triggered more often due to complaints, spills, or certain upcoming weather conditions.

Compliance

Maintenance, repair, or installation of any stormwater pollution prevention BMPs that are noted during the contractor's inspection and/or the city inspection must be completed immediately.

The following outlines typical non-compliance issues and possible enforcement actions. For more detailed information, please refer to the City of Brighton Municipal Code, Chapter 14.2.

Non-compliance issues shall include, but shall not be limited to:

- ☐ Failure to obtain a City of Brighton Erosion and Sediment Control (ESC) permit for projects greater than or equal to one (1) acre, or for sites disturbing less than one (1) acre that belong to a common larger plan of development that shall disturb more than one (1) acre;
- ☐ Failure to obtain a State Stormwater Discharge Permit (SDP) from the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division for projects greater than or equal to one (1) acre, or for sites disturbing less than one (1) acre that belong to a common larger plan of development that shall disturb more than one (1) acre;
- ☐ Failure to abide by the conditions of the city's ESC permit;
- ☐ Failure to properly install, maintain, and/or replace critical or non-critical BMPs immediately;
- ☐ Failure to remove temporary BMPs once such item is noted during an inspection;
- ☐ Failure to implement the Erosion and Sediment Control Plan (ESCP), also referred to as Storm Water Management Plan (SWMP);
- ☐ Failure to modify the ESCP/SWMP to reflect field changes;
- ☐ Direct discharge of any pollutant(s) into a waterway, jurisdictional wetland, or a storm sewer system; and/or,
- ☐ Work beyond limit(s) of the permit area.

Enforcement Actions

If site conditions are found to be in violation of the ESC permit or any other requirements set forth in Chapter 14-2 of the City of Brighton Municipal Code during an inspection by the city inspector, one or all of the following actions may be taken:

- Verbal warning;
- Written compliance order;
- Suspension or revocation of permit(s);
- Denial of further review or future inspections and/or permits;
- Stop work order; and/or,
- Hiring a private contractor and/or city crew to perform work – cost of work will be deducted from the performance security collected at ESC permit issuance for developers, or collected by a lien on the property for builders.

Priority Violations

Priority violations may include: working without a permit; failure to install and/or maintain critical BMPs; working beyond limits of the permitted area; discharge of contaminated water into storm sewer system; discharge of contaminated water into a water way; washing roadway debris into a storm inlet; washing concrete trucks in unapproved locations; and/or, failure to correct routine violations.

Priority violations will result in the immediate issuance of a stop work order. Failure to meet the compliance deadline to repair or install critical BMPs may result in a suspension or revocation of the permit(s), and may result in city action to activate the financial guarantee on file to hire a private contractor and/or city crew to perform the work.

Routine Violations

Routine violations may include: failure to abide by the conditions of the ESC permit; failure to properly install, maintain, and/or replace non-critical BMPs; and/or, failure to remove and properly dispose of BMPs when they are no longer needed.

Routine violations may result in a written compliance order detailing non-compliant items and a compliance date. Failure to meet the compliance deadline to repair or install non-critical BMPs may result in suspension or revocation of permit/s, stop work orders, and may result in city action to activate the financial guarantee on file to hire a private contractor and/or city crew to perform the work.

Right of Entry

The city inspector may, where reasonable cause exists, with or without a warrant issued by a court of competent jurisdiction, enter upon any property for examination of the same to ascertain whether a violation of the requirements set forth in Chapter 14-2 of the City of Brighton Municipal Code exists. The City of Brighton and any designee shall be exempt from any legal action or liability on account thereof.

In addition to the above mentioned penalties, the penalties set forth in Section 14-2-110 of the City of Brighton Municipal Code shall apply.

Appendix D

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500 South 4th Avenue Brighton, CO 80601
www.brightonco.gov 303.655.2000

STORMWATER

SWMP Checklist:

- COB ESC Permit#:

SWMP MINIMUM REQUIREMENTS

Site Description:	**YES**	**No**
a) The nature of the construction activity at the site		
b) The proposed **sequence for major activities**		
c) Estimates of the total area of the site and the area and location expected to be disturbed by clearing, excavating, grading, or other construction activities		
d) A summary of any existing data used in the development of the site construction plans or SWMP that describe the soil or existing potential for soil erosion		
e) A **description** of the existing vegetation at the site and an **estimate** of the percent vegetative ground cover		
f) The **location** and **description** of any anticipated allowable sources of non-stormwater discharge at the site, e.g., uncontaminated springs, landscape irrigation return flow, construction dewatering (as long as the source of groundwater and/or groundwater combined w/ SW does not contain pollutants, the source and BMPs are identified in the SWMP and the discharge does not leave the site as surface runoff or to surface waters) , and concrete washout (use liner), super-chlorinated water for line testing (discharge only after dechlorination BMPs such as industry standard dechlorination techniques or chemical treatment to "no measurable chlorine" content. Control flow during discharge to allow infiltration and reduce erosion of land.)		
g) The name of the receiving water(s) and the size, type and location of any outfall(s). If the stormwater discharge is to a municipal separate storm sewer system, the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s). Distance to ultimate receiving water		

Site Map:		
a) Construction site boundaries		
b) All areas of ground surface disturbance		
c) Areas of cut and fill		
d) Areas used for storage of building materials, equipment, soil, or waste;		
e) Locations of dedicated asphalt or concrete batch plants		
f) Locations of all structural BMPs		
g) Locations of non-structural BMPs as applicable; and		

h) Locations of springs, streams, wetlands and other surface waters		
i) COB Standard Notes		
j) Boundaries of 100-year flood plains, if determined		

Others:

1) **BMPs used for delineation of the site need to be noted as such in SWMP.**
2) **Use of detention pond as "sedimentation pond" during construction**

Stormwater Management Controls:		
Narrative description of the appropriate stormwater management controls for the permitted site. As further addressed below, in many cases it may be necessary to supplement the narrative description with technical drawings in order to accurately communicate the design standards for certain structural BMPs.		
SWMP Administrator:		
The SWMP shall identify a specific individual(s), position or title who is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP:		
Identification of Potential Pollutant Sources:		
1) all disturbed and stored soils; 2) vehicle tracking of sediments; 3) management of contaminated soils; 4) loading and unloading operations; 5) outdoor storage activities (building materials, fertilizers, chemicals, etc.); 6) vehicle and equipment maintenance and fueling; 7) significant dust or particulate generating processes; 8) routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.; 9) on-site waste management practices (waste piles, liquid wastes, dumpsters, etc.); 10) concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment; 11) dedicated asphalt and concrete batch plants; 12) non-industrial waste sources such as worker trash and portable toilets; and 13) other areas or procedures where potential spills can occur.(MASON AREA with berm or BMP). Hydrostatic testing (w/permit), saw cutting wastewater, bentonite from boring. Contaminated soil not expected, if so, stop and assess. Liquids in secondary containment.		
Best Management Practices (BMPs):		
1) Structural Practices for Erosion and Sediment Control		
2) Non-Structural Practices for Erosion and Sediment Control. (roughening, vegetative buffer strips, protection of trees, and preservation of mature vegetation, sweeping, watering, inspections, education, mulch & Seed, trash control, sanitary waste control, Spill prevention)		
3) Phased BMP Implementation. The SWMP shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management controls		
4) Materials Handling and Spill Prevention. The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials that could contribute pollutants to runoff		
5) Dedicated Concrete or Asphalt Batch Plants		
6) Vehicle Tracking Control: minimizing site access; street sweeping or scraping; tracking pads; graveled parking areas; requiring that vehicles stay on paved areas on-site; wash racks; contractor education; and/or sediment control BMPs, etc.		

7) Waste Management and Disposal, Including Concrete Washout		
8) Groundwater and Stormwater Dewatering. Describe and locate the practices that will be implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc. Note that the CDPHE stormwater permit authorizes the conditional discharge of construction dewatering to the ground, as long as the discharge is kept on-site. Unless construction dewatering of groundwater is authorized under a separate CDPS discharge permit, the SWMP shall clearly describe and locate the practices to be used that will ensure that no groundwater from construction dewatering is discharged from the site as surface runoff or to surface waters.		
Does the SWMP include the installation and implementation specification/detail drawings associated with all BMPs implemented at the site? Add applicable detail drawings from UDFCD, including Housekeeping: http://www.udfcd.org/downloads/pdf/critmanual/Volume%203%20PDFs/Chapter%207%20Construction%20BMPs.pdf		

Final Stabilization and Long-term Stormwater Management:		
Does the SWMP clearly describe the practices used to achieve final stabilization and any planned practices to control pollutants in SW discharges that will occur after construction operations have been completed at the site? (i.e seed mix selection and application methods; soil preparation and amendments; soil stabilization practices, etc) Note: if permitee relies on a landscape plan, then it must be referenced and maintained with the SWMP.		

Inspection and Maintenance Procedures:		
a. Inspection Frequency -In addition to every 14 days, inspections will also be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the routine inspection requirement, and this could reset the 14 day schedule. For sites or portions of sites where final stabilization has not been achieved due to a vegetative cover that has not become established, a thorough inspection of the stormwater management system will be made at least once every month.		
b. Inspection Procedures: Inspection reports must identify any incidents of non-compliance with the terms and conditions of general permit		
c. BMP Maintenance/Replacement and Failed BMPs		
d. Inspection Certification and Completion Signatures		
e. Record Keeping and Documenting Inspections: Inspection records must be retained for three years from the expiration or inactivation of permit coverage		

City of Brighton Requirements		
14-day Inspection template: **http://www.brightonco.gov/DocumentCenter/Home/View/1117** Inspection Certification signature block Corrective Action Certification signature block Compliance Inspection Certification Signature block		
Public Notice Sign Requirements: **http://www.brightonco.gov/DocumentCenter/Home/View/1121** **http://www.brightonco.gov/DocumentCenter/Home/View/1120**		

Fish Imprint Requirements: **http://www.brightonco.gov/DocumentCenter/Home/View/1174**		
Projected Cost of Best Management Practices:		
The estimated total cost for installation and maintenance of the required temporary soil erosion and sediment control measures to assist the Director of Utilities to determine surety or financial guarantee requirements for the proposed plan		
Financial Guarantee:		
A surety, bond, letter-of-credit, escrow account or other financial guarantee acceptable to the City of Brighton submitted in an amount sufficient to install and maintain for a period of one year the temporary and permanent erosion and sediment control measures described in the plan		
Certification Statement & Signature Page: A signature of the applicant, owner or developer acknowledging the following: "This Stormwater Management Plan (SWMP) fulfills the Urban Drainage and Flood Control District's technical criteria and the criteria for erosion and sediment control (ESC) plan requirements of City of Brighton to the best of my knowledge. I understand that additional erosion and sediment control measures may be needed if unforeseen erosion problems occur or if the submitted Plan does not function as intended. The requirements of this Plan shall run with the land and be the obligation of the land owner or contractor until such time as the plan is properly completed, modified, inactivated or voided"		

Note: language such as might/could/maybe are not acceptable. SWMP must provide direction.

Appendix E

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www.brightonco.gov 303.655.2000
STORMWATER

City of Brighton Post-Construction Runoff Control Program

Introduction

The City of Brighton Stormwater Division believes that it is essential to have oversight of permanent best management practices from the beginning of the design phase and throughout the life of the control measure. The Stormwater Division further acknowledges that a strong design and maintenance plan will ensure that the development's impact of stormwater runoff is being treated to the maximum extent practicable.

In efforts to ensure compliance with MS4 Permit requirements, standard operating procedures (SOP) were developed and implemented for oversight of permanent best management practices. This document provides a consistent framework for conducting site plan review, inspections and implementing enforcement procedures. The goal is to provide guidance to the inspector to achieve consistency in site plan reviews, inspections, calibration in compliance determinations, and enforcement.

Table of Contents

I. Applicability

A. 2005-2006

For sites that were approved/built in 2005 and 2006, the long term maintenance of post-construction BMPs are supported by information in approved plans, Development agreements, Final Plats, Use-by-Right, Drainage reports and/or PUD documents.

B. 2007

For sites that were approved/built in 2007, the long term maintenance of post-construction BMPs are supported by Storm Drainage Ordinance 14-2.

C. 2008-Current

For sites that were approved/built after October 2008, the long term maintenance requirements of post-construction BMPs are supported Storm Drainage Ordinance 14-8. Many maintenance requirements of control measure are also addressed in the site Development Agreement.

II. Development Review

A. Preliminary Contact Meeting

A developer or property owner interested in developing/redeveloping a property within the City of Brighton can request a preliminary contact meeting (PLC). This is an informal meeting to provide a basic outline of the development and entitlement process. Question for specific divisions, including the Stormwater Division, are answered during this meeting.

B. Official Submittal

This is an official submittal to the City of Brighton for a development or redevelopment project. Civil plans, drainage reports, etc. are distributed to all members of the Development Review Committee. The Stormwater Division ensures that all submitted designs conform to City of Brighton Standards and Specifications, Urban Drainage and Flood Control District Standards and meet all requirements of the City of Brighton Phase II MS4 permit.

During this phase, there may be serval rounds of review during which all items will be addressed by the applicant.

C. Development Review Committee Meeting

Should the developer/landowner have questions regarding comments made by the City, the applicant can request a DRC Meeting. This is a face-to-face meeting that allows for better communication and resolutions to the issue.

D. Final Approval

After all items have been addressed by the applicant and the City has not further comments, the design will be marked as approved in the Innoprise System by all members of the DRC. Once all members have approved a project, the applicant can move to the permitting phase.

III. Site Access

Per City of Brighton Municipal Code section 14-8-80: Right of entry; City inspection and sampling, City Inspectors have the authority to enter upon private property for inspection purposes.

Agreement for access to the property for inspection purposes is also spelled out in the Development Agreement.

IV. Property Owner Requirements

A. Change of Ownership

Per the site Development Agreement, the City of Brighton is to be notified in writing of any change in ownership of a post-construction control measure.

B. Inspections and Maintenance

All properties that contain a permanent BMP are responsible to inspect and maintain said BMP in accordance with the Urban Drainage and Flood Control District Criteria. This requirement is spelled out the Development Agreement.

V. Inspector Roles and Qualifications

It is imperative that an inspector be qualified for the roles he/she must perform. Upon employment with the City of Brighton Stormwater Division, an inspector should receive training in the following categories:

1. Professional Training

An inspector shall attend an accredited training course to become certified in Erosion and Sediment Control and permanent BMP inspection. These certifications may be offered through a higher education program or another accredited institute.

Throughout an inspector's career, he/she should attend professional lectures and training sessions to continue to generate a high level of knowledge in the field of stormwater pollution prevention.

2. Field Training

An inspector should be trained in the field with an experienced professional in stormwater protection. The training should focus on the six minimum control measures found in a Municipal Separate Storm Sewer System general permit; public education and outreach, public involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and good housekeeping.

VI. Types of Inspections and Personal Protective Equipment

A. Person Protective Equipment (PPE)

Before an inspector enters an active construction site, it is mandatory to ensure that all required PPE is in place. The following items shall be on the inspector's person while on an active site:

a) Hard hat

The inspector shall have a hard hat issued by the City of Brighton and rated for the purpose of construction activities.

b) Safety boots

The inspector shall have safety boots issued by the City of Brighton with steel toes. No other shoe is permitted on construction sites by the Stormwater Division.

c) Reflective safety vest

The inspector will wear a reflective safety vest at all time while on an active construction site. A certified vest will be issued to the inspector by the Stormwater Division.

d) Safety glasses

Safety glasses will be worn while inspecting a construction site. Safety glasses will be issued by the City.

e) Protective gloves

Gloves will be required to be worn on construction sites. Gloves will be issued by the City.

B. Type of Inspection

A Routine inspection is conducted at least once per permit term as required by the City of Brighton MS4 permit.

1. Full-Level Inspection (Routine)

This inspection is conducted to assess the adequacy of BMPs and overall site management. This inspection is performed by a qualified inspector. A

permanent BMP inspection form is filled out by the inspector and correspondence is sent to the property owner to address any instances of non-compliance with control measures on-site.

During a full-level inspection, property owners/responsible parties are encouraged to join the inspector to discuss the findings at the site. Direct contact with the responsible party can increase compliance and reduce findings in the future.

During the inspection, the following should take place:

a) Inspect for Pollution Sources

The inspector should evaluate if there are any sources of stormwater pollution at the site. This may include an accumulation of sediment in the best management practice, trash and debris, etc.

b) Control Measure Function

The inspector should make an in-depth inspection of the BMPs in the field. Ensure that BMPs are functioning as they were designed by the engineer. If the BMP is not functioning correctly, note the cause of the malfunction and what maintenance needs to be completed on the control measure.

c) Pictures

Dated pictures shall be taken of all instances of non-compliance for record of the inspection and findings.

If the inspector notes any findings that have an impact on water quality or that may lead to non-permitted discharges, the inspector should contact the responsible party immediately. The contractor should correct the finding while the inspector is on-site to minimize the possibility of stormwater pollution.

C. Compliance Inspection (reduced level)

Compliance inspections are a reduced level inspection conducted to ensure compliance with items noted during a full level inspection. All findings from a previous inspection will be re-inspected to ensure that corrections have been made. If findings previously noted are not addressed appropriately, the inspector shall use an enforcement action to ensure compliance.

D. Construction Acceptance Inspection (full level)

When a control measure has been installed at a development or redevelopment site, an inspection by the Stormwater Division shall take place. The inspection will ensure that the construction team has installed the best management practice per the specification

of the design engineer. The inspection will also ensure that there are not any flaws in the materials used to construct the BMP.

This acceptance inspection is tracked in the Innoprise system to ensure documentation of City acceptance can be located quickly.

E. Citizen Complaint (reduced level)

Citizens have several opportunities to comment on post-construction activities in the City. The citizen can reach the Stormwater Division through direct contact, through the Stormwater Hotline email or phone number and through other City employees. If a citizen complaint is received by the Stormwater Division, the City inspector shall respond to the site within a reasonable amount of time to address the concern. This inspection is a reduced level inspection and should focus on the area of concern reported by the citizen.

VII. Post Inspection Procedures

A. Data Entry

Upon leaving the facility, several steps need to be taken to appropriately document the inspection.

1. Field Notes

Any notes taken during the inspection should be recorded in the inspection database. Notes can include areas to observe in the future or other relevant thoughts.

2. Inspection Form

The inspection form needs to be filled out in its entirety and stored with the inspection report on the City database. This form will note any deficiencies in management of the site. The form will be certified by the inspector.

3. Photographs

Photographs taken during the inspection shall be printed, labeled and incorporated within the inspection report.

B. Data Transmittal

The results of the inspection shall be transmitted to the responsible party and others to make them aware of the inspection/findings. This is an important step; if the property owner does not know there was a finding, it cannot be corrected. In this communication it shall be stated that if the responsible party needs additional, reasonable, time to complete a correction, the Stormwater Division shall be contacted.

This communication shall be noted on the field notes and saved in the City database for use in enforcement and reporting purposes.

VIII. Pond Maintenance Requirements and Standards

All pond maintenance should be completed in accordance to the Urban Drainage and Flood Control District Criteria Manual. This manual is available free-of-charge at: www.udfcd.org

IX. Enforcement

While conducting a routine inspection the inspector notes any instances of non-compliance from the responsible party and the responsible party has not contacted the Stormwater Division for a time extension, an enforcement action shall be warranted.

The City of Brighton Municipal Code Chapter 14, Article 14-8, Section 14-8-100 allows for enforcement for non-compliance by a responsible party. The enforcement actions are not considered to be in an escalation ladder, but rather the enforcement action shall be proportionate to the instance of non-compliance. Factors such as the probability of stormwater pollution and protection of the environment should be considered when selecting an enforcement action.

The following actions are appropriate enforcement for non-compliance:

1. Written Notice of Violation and Compliance Order

The permittee or responsible party shall receive an official document stating the nature of the violation and compel the permittee to perform an action. This action may be to maintain a BMP or to perform some other scope of work. The official notification will be hand delivered or sent via U.S. Mail.

2. Municipal Summons (Criminal Action)

The permittee shall receive a summons to the Municipal Court of the City of Brighton. The guilt or innocence of a permittee shall be decided by a Court of Law and/or by a jury of his or her peers. This enforcement action may carry jail time and/or fines enforced by the Court.

3. Verbal Notice of Violation and Compliance Order

The permittee shall receive an official verbal directive stating the nature of the non-compliance and compel the responsible party to perform an action. This action may be to maintain a BMP or to perform some other scope of work. The official notification will be verbally stated to the responsible party of permittee.

4. Work Performed by City or Contractor

In the case of non-compliance the City can perform BMP maintenance or installation or hire a contractor to complete the work. The City will charge the responsible party for the work completed. If the invoice for completed work is not paid in full, the City shall place a lien on the property.

X. General Guidance (threats, questioning techniques, further assistance)

A. Questioning Techniques

In general, the inspector should not ask leading questions. Instead, open-ended questions should be phrased in a manner that allows contractors or other individuals to provide all necessary details. In most instances, the use of simple, direct and open-ended questions is the most effective method for obtaining information. Direct yes/no questions should be used for verification or clarification purposes only.

If the responsible party or contractor does not provide an adequate answer to a question, the inspector should pursue the question until a complete answer is received. The inspector should try to ask the same question in several different ways until the pertinent information is received. If possible, the inspector should question other employees in order to resolve the issue. The inspector should use a logical questioning pattern while obtaining information. When asking critical questions, the inspector should include the phrasing of the questions and answers in the report.

B. Denial of Access to Site

According to the City of Brighton Municipal Code Chapter 14, Article 14-2, Section 14-2-100, a City inspector has the authority to enter upon a permitted site for reason of inspection. The inspector cannot be denied access to the site. If the inspector is ever denied access, the inspector shall cite the City of Brighton Municipal code to the contractor in an effort to gain access. If access is still denied to the inspector, he/she shall record information about the situation, the person denying entry and any information deemed necessary. The inspector shall leave the site promptly and report the situation to his/her supervisor. The supervisor is responsible for contacting City legal counsel regarding the incident.

C. Threats to City Employees

If you or another City employee is threatened during an inspection, you must **immediately** leave the facility. You must contact your supervisor and discuss the circumstances. If a City employee is injured or fears for his/her safety, **dial 911 immediately.**

D. Imminent Hazards

If an imminently dangerous condition is encountered, the inspector should leave the site and consult his/her supervisor. Outside agencies, such as the Health Department or Fire Department, may need to be contacted. All concerns should be well documented and included in the report. Imminent hazards can include a variety of circumstances such as someone smoking near an ignitable liquid, someone with a firearm, or the venting of a toxic chemical.

Appendix F

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STORMWATER

City of Brighton Good Housekeeping and Municipal Operations Program

Introduction

The City of Brighton Stormwater Division believes that it is essential to be a role model for the community by ensuring that the City is reducing its impact on urban storm drainage to the maximum extent practicable. The Stormwater Division ensures that municipal facilities are following the Municipal Facility Runoff Control Plan (MFRCPs) designed for the applicable municipal buildings. The Division also ensures that stormwater impacts are reduced during all municipal operations.

In efforts to ensure compliance with MS4 Permit requirements, standard operating procedures (SOP) were developed and implemented for oversight of municipal facilities and operations. This document provides a consistent framework for conducting facility inspections, maintaining MFRCPs, and maintaining municipal SOPs. The goal is to provide guidance to City Personnel to reduce the overall impact the City has on the environment and stormwater runoff.

Table of Contents

I. Applicability

A. Covered Municipal Facilities

1. Parks Maintenance Facility

The Parks Maintenance Facility houses all the material needed to maintain public parks throughout the City of Brighton. This includes motorized vehicle, non-motorized vehicles, small-engine machinery, chemicals and other necessary materials.

2. Street and Fleet Facility

The Street and Fleet Facility houses material needed to maintain the streets and motor-vehicle fleet for the City. This includes storage of vehicles, chemicals, sand and gravel and an indoor vehicle maintenance facility.

3. Utility Maintenance Facility

The Utility Maintenance Facility houses material needed to maintain the sanitary sewer, water service, and storm drainage for the City. This includes vehicle storage, sand and gravel storage, and other essential materials.

4. Miller Street Storage Facility

The Miller Street Storage Facility houses signs and small non-motorized pieces of equipment outdoors.

5. Numerous Public Parking Lots

6. Numerous Municipal Cemeteries

II. Municipal facility Runoff Control Plans

The Stormwater Division has completed MFRCPs for all applicable municipal facilities listed above. Copies of these MFRCPs are stored at the municipal facility and a master copy stored in the Utilities Department.

The MFRCPs contain the following information:

(1) Potential pollutant sources and locations

(2) BMPs for pollutant sources

(3) Map of facility, including BMP locations and discharge locations

(4) Record of annual inspections and inspector title

III. Inspector Roles and Qualifications

It is imperative that an inspector be qualified for the roles he/she must perform. Upon employment with the City of Brighton Stormwater Division, an inspector should receive training in the following categories:

1. Professional Training

An inspector shall attend an accredited training course to become certified in Good Housekeeping and Municipal Operations. These certifications may be offered through a higher education program or another accredited institute.

Throughout an inspector's career, he/she should attend professional lectures and training sessions to continue to generate a high level of knowledge in the field of stormwater pollution prevention.

2. Field Training

An inspector should be trained in the field with an experienced professional in stormwater protection. The training should focus on the six minimum control measures found in a Municipal Separate Storm Sewer System general permit; public education and outreach, public involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and good housekeeping.

IV. Types of Inspections and Personal Protective Equipment

A. Person Protective Equipment (PPE)

Before an inspector enters a municipal facility, it is mandatory to ensure that all required PPE is in place. The following items shall be on the inspector's person while on an active site:

a) Hard hat

The inspector shall have a hard hat issued by the City of Brighton and rated for the purpose of construction activities.

b) Safety boots

The inspector shall have safety boots issued by the City of Brighton with steel toes. No other shoe is permitted on construction sites by the Stormwater Division.

c) Reflective safety vest

The inspector will wear a reflective safety vest at all time while on an active construction site. A certified vest will be issued to the inspector by the Stormwater Division.

d) Safety glasses

Safety glasses will be worn while inspecting a construction site. Safety glasses will be issued by the City.

e) Protective gloves

Gloves will be required to be worn on construction sites. Gloves will be issued by the City.

B. Type of Inspection

A Routine inspection is conducted annually at all municipal facilities as required by the City of Brighton MS4 permit.

1. Full-Level Inspection (Routine)

This inspection is conducted to assess the function of any BMPs, overall site management and compliance with the facility MFRCP/SOPs. This inspection is performed by a qualified inspector. A municipal facility inspection form is filled out by the inspector and correspondence is sent to the facility manager to address any instances of non-compliance with the MFRCP/SOPs.

During a full-level inspection, facility managers are encouraged to join the inspector to discuss the findings at the site. Direct contact with the responsible party can increase compliance and reduce findings in the future.

During the inspection, the following should take place:

a) Inspect for Pollution Sources

The inspector should evaluate if there are any sources of stormwater pollution at the site. This may include an accumulation of sediment in the best management practice, trash and debris, etc.

b) Control Measure Function

The inspector should make an in-depth inspection of the BMPs in the field. Ensure that BMPs are functioning as they were designed by the engineer. If the BMP is not functioning correctly, note the cause of the malfunction and what maintenance needs to be completed on the control measure.

c) Compliance with MFRCP

The inspector should ensure that a copy of the MFRCP is still at the facility and that all BMPs to control pollution sources are implemented.

d) Compliance with SOPs for Municipal Operations

The inspector should ensure that all municipal operation are complying with the municipal operations standard operating procedures.

e) Pictures

Dated pictures shall be taken of all instances of non-compliance for record of the inspection and findings.

If the inspector notes any findings that have an impact on water quality or that may lead to non-permitted discharges, the inspector should contact the facility immediately. The facility manager should correct the finding while the inspector is on-site to minimize the possibility of stormwater pollution.

C. Compliance Inspection (reduced level)

Compliance inspections are a reduced level inspection conducted to ensure compliance with items noted during a full-level inspection. All findings from a previous inspection will be re-inspected to ensure that corrections have been work with the facility manager to correct the findings. If any issues cannot be resolved, the inspector should consult his/her immediate supervisor.

D. Citizen Complaint (reduced level)

Citizens have several opportunities to comment on municipal operations and municipal facilities in the City. The citizen can reach the Stormwater Division through direct contact, through the Stormwater Hotline email or phone number and through other City employees. If a citizen complaint is received by the Stormwater Division, the City inspector shall respond to the facility within a reasonable amount of time to address the concern. This inspection is a reduced level inspection and should focus on the area of concern reported by the citizen.

V. Post Inspection Procedures

A. Data Entry

Upon leaving the facility, several steps need to be taken to appropriately document the inspection.

1. Field Notes

Any notes taken during the inspection should be recorded in the inspection database. Notes can include areas to observe in the future or other relevant thoughts.

2. Inspection Form

The inspection form needs to be filled out in its entirety and stored with the inspection report on the City database. This form will note any deficiencies in management of the site. The form will be certified by the inspector.

3. Photographs

Photographs taken during the inspection shall be printed, labeled and incorporated within the inspection report.

B. Data Transmittal

The results of the inspection shall be transmitted to the facility manager and others to make them aware of the inspection/findings. This is an important step; if the manager does not know there was a finding, it cannot be corrected.

This communication shall be noted on the field notes and saved in the City database for use reporting purposes.

VI. BMP Maintenance Requirements and Standards

All BMP maintenance should be completed in accordance to the Urban Drainage and Flood Control District Criteria Manual. This manual is available free-of-charge at: www.udfcd.org

VII. Nutrient Source Reductions

A. Nitrogen and Phosphorus Contribution

Several municipal operation and facilities have the potential to contribute nitrogen and phosphorus to stormwater runoff. The following list describes the facility and/or the activity that has a potential to contribute nutrients to stormwater.

1. Animal Shelter

Animal waste from the outdoor dog run at the animal shelter can contribute nutrients to stormwater runoff. Best management practices to prevent stormwater pollution is to pick up animal waste immediately.

2. Parks Maintenance Facility

Parks maintenance stores all fertilizer indoors. However, during daily operations they apply fertilizer to the many parks in the City. The best management practice for this operation is to provide training to the parks maintenance personnel. Please seethe “Training” section for further information.

B. Outdoor Bulk Storage

1. Streets Maintenance Facility

The City of Brighton Street Maintenance facility is the only location that has outdoor bulk storage of a potential stormwater pollutant. The de-icing chemicals applied to the streets during a winter storm is stored in a large container at the maintenance facility. The best management practice for this bulk storage is secondary containment. A concrete secondary containment structure is located below the tank. This structure has capacity to hold 110% of

the volume of the container. The extra 10% being for any precipitation that may occur during or after a breach of the container.

VIII. Training

The Stormwater Division is responsible to provide annual Good Housekeeping and Municipal Operations training to applicable employees. Each Department/Division is responsible for implementing Good Housekeeping and Municipal Operations requirements throughout the year. The training includes how to maintain a workspace or facility that will not contribute to stormwater pollution. The training also includes training on how to prevent stormwater pollution during various tasks that must be performed by City personnel.

A. Good Housekeeping and Municipal Operations

The Stormwater Division provides presentations, visual representations, and question/answer sessions to train employees. The following are appropriate methods of employee training:

1. PowerPoint Presentation

2. Video

3. Lecture

B. Reporting to the Stormwater Division

All spills and/or illicit discharges must be reported to the Stormwater Division **immediately**. The Division has the most training and will respond to the location and further assess the situation. Reporting can be done through City email, phones, cell phones or in person. City employees are trained on collection of the appropriate information to provide to the Stormwater Division. Employees reporting an illicit discharge are requested to report as many of the following as possible:

(1) Location (address/intersection)

(2) Quantity (estimated volume)

(3) Nature of the substance (color/odor, type of chemical, liquid, solid)

(4) Date, time, and duration of the spill

(5) Description of the affected area

(6) The cause (if known)

(7) Is the discharge flowing into a waterway?

(8) Any information on suspicious activities

(9) Vehicle license number

(10) Names of people potentially involved in the spill or dumping.

(11) List of other agencies notified, including date.

IX. Training Materials

1. PowerPoint Presentation

PowerPoint presentations with video/images concerning good housekeeping can be used to train employees. The PowerPoint should include an overview of the Division and stormwater in general, how to maintain a facility that will not contribute to environmental pollution and how to properly perform municipal operations without compromising water quality.

2. Video

A video training should be prefaced by a narrative overview of the Division. The video should include an overview of stormwater in general, how to maintain a facility that will not contribute to environmental pollution and how to properly perform municipal operations without compromising water quality.

3. Lecture

A lecture style training shall include an overview of the Division and stormwater in general, how to maintain a facility that will not contribute to environmental pollution and how to properly perform municipal operations without compromising water quality.

In addition to the materials listed above, the Stormwater Division maintains SOPs for over 20 municipal operations. These standard operating procedures are available to all City staff via the City's Intranet. Please see the SOPs for the following operations below.

X. Standard Operating Procedures for Municipal Operations

Please see the following SOPs for municipal operations. SOPs are available upon request at Brighton City Hall.

(1) Fertilizer, Herbicide and Pesticide Application

(2) Heavy Equipment and Vehicle Maintenance

(3) Large Outdoor Festivals and Events

(4) Municipal Construction Activities

(5) Outdoor Fleet Maintenance

(6) Outdoor Materials Storage

(7) Parks and Open Space Maintenance

(8) Power Washing Activities

(9) Salt and Sand Storage

(10) Snow and Ice Control

(11) Snow Storage

(12) Spill Prevention and Response

(13) Streets- Curb and Gutter Maintenance

(14) Streets- Curb and Gutter Replacement

(15) Street Sweeper Cleaning and Disposal

(16) Street Sweeping Activities

(17) Utilities Maintenance

(18) Utility Construction and Replacement

(19) Vehicle Fueling Activities

(20) Waste Management

(21) Recycling Drop-off Center

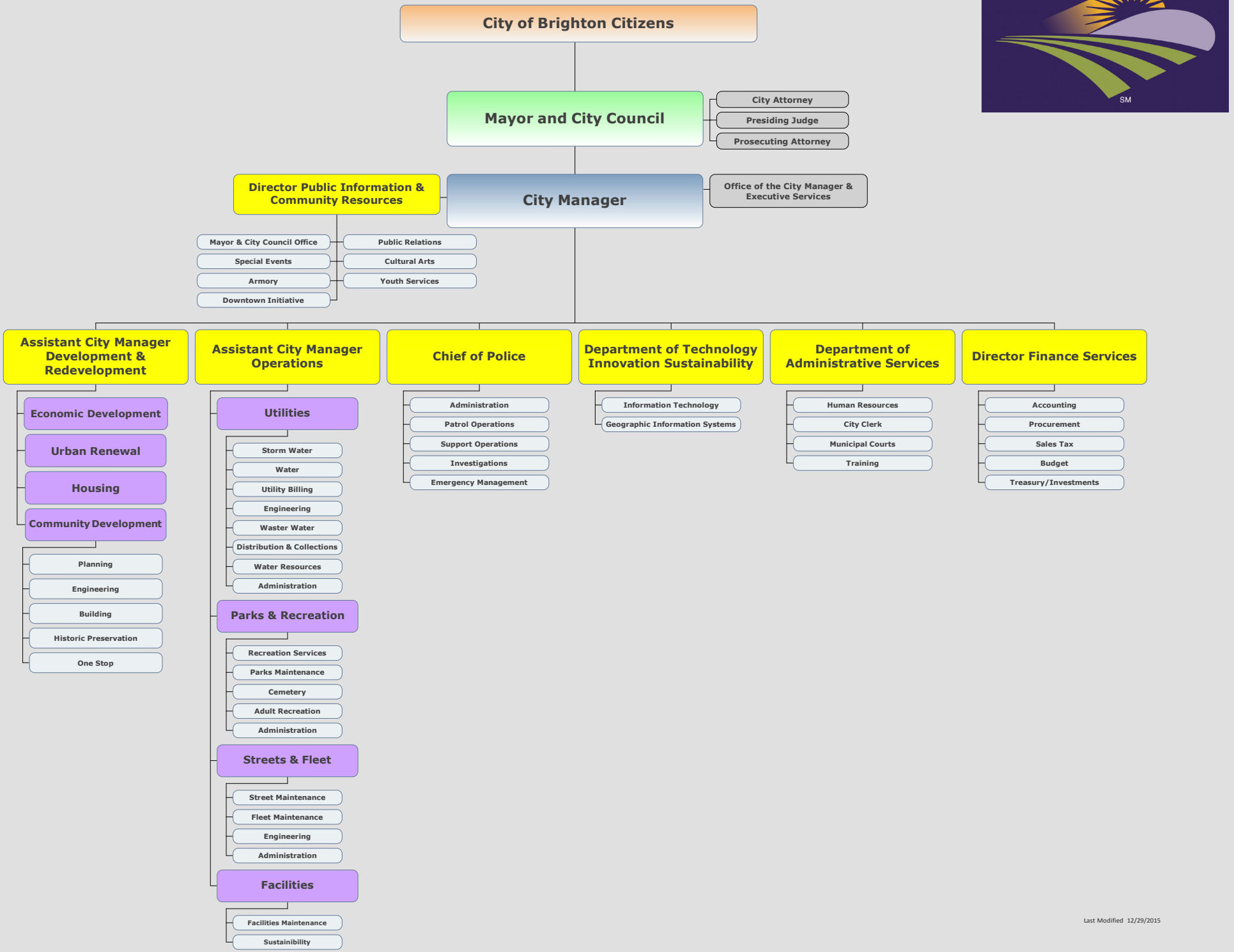
(22) Graffiti Removal

(23) Paint and Paint Removal

(24) Coils Cleaning- THE

(25) MS4 Maintenance Activities

Appendix G


City of Brighton Citizens
Mayor and City Council
City Attorney
Presiding Judge
Prosecuting Attorney
Director Public Information & Community Resources
City Manager
Office of the City Manager & Executive Services
Mayor & City Council Office
Special Events
Armory
Downtown Initiative
Public Relations
Cultural Arts
Youth Services
Assistant City Manager Development & Redevelopment
Assistant City Manager Operations
Chief of Police
Department of Technology Innovation Sustainability
Department of Administrative Services
Director Finance Services
Economic Development
Urban Renewal
Housing
Community Development
Planning
Engineering
Building
Historic Preservation
One Stop
Utilities
Storm Water
Water
Utility Billing
Engineering
Waster Water
Distribution & Collections
Water Resources
Administration
Parks & Recreation
Recreation Services
Parks Maintenance
Cemetery
Adult Recreation
Administration
Streets & Fleet
Street Maintenance
Fleet Maintenance
Engineering
Administration
Facilities
Facilities Maintenance
Sustainibility
Administration
Patrol Operations
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